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(54) Title: MODIFIED DEACETOXYCEPHALOSPORIN C SYNTHASE (DAOCS) AND X-RAY STRUCTURE

(57) Abstract

Three-dimensional crystal structure(s) of deacetoxycephalosporin C synthase (DAOCS) are described. The X-ray co-ordinates provide precise 3-dimensional information of amino acids within the structure of DAOCS. Some of these are in complexes with iron and/or substrates. Information from the structures is used to modify enzymes of the cephalosporin biosynthesis pathway including DAOCS, deacetylcephalosporin C synthase DAOC/DACS, such that they accept unnatural substrates (e.g. penicillins G, V) in order to improve the production of beta-lactam antibiotics. The structures may be used to predict the structures of other 2-oxoglutarate dependent enzymes, thereby allowing the design of inhibitors, and new catalysts for the production of e.g. oxidised amino acids/peptides. Specific modifications of amino acid residues are proposed and exemplified.

MODIFIED DEACETOXYCEPHALOSPORIN C SYNTHASE (DAOCS) AND X–RAY STRUCTURE

Penicillin and cephalosporin antibiotics are produced either directly by fermentation or by modification of fermentation derived materials containing a beta-lactam ring. The biosynthetic pathway to the penicillins and cephalosporins has been extensively studied and reviewed (J. E. Baldwin and C. J. Schofield, in 'The Chemistry of β-lactams (Ed. M. I. Page), Chapter 1, Blackie, London 1992; Ingolia and Queener, Med. Res. Rev., 1989, 9, 245-264; Aharonowitz, Cohen and Martin, Ann. Rev. Microbiol., 1992, 46, 461-495; Schofield, Bycroft, Baldwin, Hadju, Roach, Current Opinion in Structural Biology, 1997, 7, 857-864) and includes the following steps (Figure 1):

1.   Conversion of the tripeptide: L-δ-α-aminoadipoyl-L-cysteinyl-D-valine (ACV) to isopenicillin N in a step catalysed by isopenicillin N synthase (IPNS). This step is common to both penicillin and cephalosporin biosynthesis.

2.   In some organisms (e.g. Penicillium chrysogenum and Aspergillus nidulans) isopenicillin N is converted by exchange of its L-δ-α-aminoadipoyl side chain to penicillins with other side chains, which are normally more hydrophobic than the side chain of isopenicillin N. This conversion is catalysed by an amidohydrolase/ acyltransferase enzyme. Examples of penicillins produced by this biosynthetic process include penicillin G (which has a phenylacetyl side chain) and penicillin V (which has a phenoxyacetyl side chain). These hydrophobic penicillins may be commercially produced via fermentation under the appropriate conditions.

3.   In other organisms (e.g. Streptomyces clavuligerus and Cephalosporium acremonium) isopenicillin N is epimerised to penicillin N. This reaction is catalysed by an epimerase enzyme.

4.   In some organisms (e.g. S. clavuligerus and C. acremonium) penicillin N is converted to DAOC. This reaction is catalysed by deacetoxycephalosporin C synthase (DAOCS) in some organisms (e.g. Streptomyces clavuligerus) and by deacetoxy/deacetylcephalosporin C synthase (DAOC/DACS) in others (e.g. C. acremonium).

5.   In some organisms (e.g. S. clavuligerus and C. acremonium) DAOC is converted to deacetylcephalosporin C (DAC). This reaction is catalysed by deacetylcephalosporin C synthase (DACS) in some organisms (e.g. S. clavuligerus) and by deacetoxy/deacetylcephalosporin C synthase (DAOC/DACS) in others (e.g. C. acremonium).

Further biosynthetic steps to give other cephalosporin derivatives may also occur, e.g. in C. acremonium DAC may be converted to cephalosporin C and in Streptomyces spp. DAC may be converted to cephamycin C. The genes encoding for each of the enzymes catalysing steps 1-6 above have been identified and sequenced.

Fermented penicillins, cephalosporins and their biosynthetic intermediates are useful as antibiotics or as intermediates in the production of antibiotics. Penicillins with hydrophobic side chains may be used for the preparation of cephalosporins or intermediates used in the preparation of cephalosporins, e.g. penicillins (including penicillin G and penicillin V) may be used to prepare C-3 exomethylene cephams which may be used as intermediates in the preparation of the commercial antibiotics, e.g. Cefachlor.

The enzymes IPNS, DAOCS, DACS and DAOC/DACS are members of an extended family of Fe(II) utilising oxidase and oxygenase enzymes. Most of this family (including DAOCS, DACS and DAOC/DACS) utilise a 2-oxo acid (normally 2-oxoglutarate) as a cosubstrate in addition to dioxygen and the 'prime' substrate (e.g. penicillin N in the case of DAOCS). Since IPNS, does not use 2-oxoglutarate, it has a substantially different mechanism to the 2-oxoglutarate dependent oxygenases, and this gives

rise to a significantly different active site.

The Invention

This invention is based on the determination of the three
dimensional crystal structure of DAOCS and the information and
developments which come from it. The X-ray co-ordinates provide very
detailed 3-dimensional information on the relationships between amino
acid residues in the structure of DAOCS and on the binding modes of the
Fe-cofactor and the substrates to DAOCS. The structure allows the
modification of DAOCS and related enzymes of penicillin and
cephalosporin biosynthesis (including DACS and DAOC/DACS) in order to
alter their substrate and product selectivities. Since the DAOCS structures
are the first from the family of 2-oxoglutarate dependent dioxygenases they
also allow for the design of new inhibitors of this family of enzymes.
Previously partial overviews of the structures of IPNS complexed to
manganese and IPNS complexed to iron and ACV were reported (Roach
et al., Nature, 1995, 375, 700-704; Roach *et al.*, Nature, 1997, 387, 827).
The structures, as defined by their X-ray co-ordinates, of IPNS complexed
to manganese and in complexes with iron, ACV and/or substrate
analogues have been reported in Baldwin, Hajdu, Roach, Hensgens,
Clifton, GB 9621486.1- (Oxygenase Enzymes and Method).

Procedures have been developed for the production of 7-
aminodeacetoxycephaosporin C (7-ADCA) in which recombinant *P.
chrysogenum* strains into which the DAOCS gene has been introduced are
used for the production of cephalosporins. In particular if adipic acid is
added to these recombinant strains adipoyl-6-APA is produced, which is
converted by DAOCS into adipoyl-7-ADCA from which the adipoyl side
chain can be removed (EPA-A-0532341, Shibata *et al.*, Bioorg. Med.
Chem. Letts, 1996, 6, 1579-1584).

The IPNS gene sequence (and therefore the amino acid

sequence) is related but significantly different to those of DAOCS, DACS, DAOC/DACS. It is likely that gross elements of the fold (i.e. significant elements within the 3-dimensional structure) of these enzymes will be conserved but that the active site architecture will be very significantly different. Structural elements conserved are likely to include the beta-barrel 'jelly roll' core and certain alpha-helices (including alpha helix-10, as defined in Roach *et al.*, Nature, 1995, 375, 700-704). The degree of similarity is insufficient to define the precise structure of DAOCS, DACS, or DAOC/DACS from the IPNS structures. To date no models of DAOCS, DACS, or DAOC/DACS based on the IPNS structure have been reported. Nor have any detailed studies on substrate binding of these enzymes been reported. One report (WO 97/20053) claims the use of products resulting from modification of certain residues in DAOCS for the improved conversion of penicillin G to phenyl acetyl (G)-7-aminocephalosporanic acid.

The three-dimensional structure of DAOCS is defined by the X-ray co-ordinates set out below (Structure A).

Also set out below is a high resolution crystal structure of a complex of prokaryotic DAOCS from *S. clavuligerus* with Fe(II) and 2-oxoglutarate (Structure B).

In part the present invention relates to the use of the structures of DAOCS in order to make modifications to it or DACS or DAOC/DACS in order that the modified enzymes catalyse the conversion of unnatural penicillins (e.g. penicillin G and penicillin V) to cephalosporins more efficiently than the wild-type enzyme. Further aspects of the invention relate to the use of the DAOCS structure in order to produce unnatural products in micro-organisms. Such products include exomethylene cephalosporins, with or without alpha-aminoadipoyl or hydrophobic side chain (e.g. phenylacetyl or phenoxyacetyl). Thus one aspect of this invention refers to the use of the structure of DAOCS for modifying DAOCS

(or the closely related enzymes DACS or DAOC/DACS) in order to:

(i)   permit the enzyme to accept (or accept more efficiently) unnatural penicillin substrates for the preparation of new or commercially valuable antibacterial materials.

5   (ii)   enable the modified enzyme to produce unnatural (e.g. exomethylene cephams) or optimise the production of minor products (e.g. 3-β-hydroxycephams) for use as antibacterials or as intermediates in the preparation of antibacterials or commercially valuable compounds.

In another aspect this invention provides modified enzymes
10   that result from application of the aforementioned techniques. These are enzymes having significant (as defined below) sequence and thus structural similarity with DAOCS. Thus, structures of these enzymes may be predicted on the basis of the DAOCS structures. Preferably there will be sequence similarity/identity between most of the modified enzyme and a
15   major part of DAOCS. Previous sequence comparisons (Roach et al., Nature, 1995, 375, 700), using pairwise comparisons of the sequences followed by single linkage cluster analysis show that IPNS, DAOCS, DACS and DAOC/DACS cluster with standard deviations scores of >5.0 (Barton and Sternberg, J. Mol. Biol., 1987, 198, 327). Scores over 5.0 and
20   preferably over 6.0 indicate that the sequence alignments will be correct within all or most of the protein secondary structural elements (Barton, Methods in Enzymol., 1990, 183, 403); thus they have significantly similar sequences and hence structures. Note there are other criteria which may be used to ascertain significant sequence similarity for example % identity
25   or % similarity of amino acids possessing side chains with similar physico-chemical properties (Barton and Sternberg, J. Mol. Biol., 1987, 198, 327). Thus, on the basis of sequence comparisons it is possible to predict the structure of one enzyme (e.g. DACS or DAOC/DACS) from another closely related enzyme (e.g. DAOCS). Further, it is recognised that although two
30   enzymes may have structures in which secondary structural elements are

largely or wholly conserved, differences in the structures of the two enzymes may result from the side chains of the amino acids forming the secondary structural elements. The effect of these differences, which alter the substrate/product selectivities of the compared enzymes, is predictable once the three-dimensional structure of one of the enzymes is known.

In another aspect the invention provides an enzyme having significant (as herein defined) sequence similarity to DAOCS wherein the side chain binding site of penicillin N or DAOC is modified and at at least one of the following sites at least one amino acid residue is changed to another amino acid residue or is deleted: Thr72, Arg74, Arg75, Glu156, Leu158, Arg160, Arg162, Leu186, Ser187, Phe225, Phe264, Arg266, Asp301, Tyr302, Val303, Asn304; and/or at least one additional amino acid residue is inserted within the region 300-311; provided that other residues interacting with the above may be changed in order to accommodate the change in one of the above.

Modifications of this kind will permit the expansion of penicillin V or penicillin G to the corresponding cephalosporins. To achieve this it is desirable to increase the kcat/Km for the mutant as compared to the wild type DAOCS. Kinetic results indicate that apparent kcat values for penicillin N and penicillin G are similar but that Km is much higher for penicillin G. Thus based on these analysis, a decrease in the binding constant of DAOCS for penicillin G should make it possible to increase kcat/Km for penicillin G.

The side chain binding pocket of DAOCS is made of residues from different parts of the peptide chain, so it is likely that more than one residue will have to be altered to make a better penicillin G/V expander. Nevertheless some residues are more important than others. Examination of the interactions between the last few C-terminal residues (Thr-308 to Ala-311) of one DAOCS molecule and the active site of another in the crystal structure, suggests a binding mode for the penicillin nucleus which

is shown in Figure 2 of the accompanying drawings. The penam C-3 carboxylate group probably occupies an analogous position to that of Ala-311 from a symmetry related molecule in the active site, forming electrostatic interactions with Arg-162 and Arg-160. The side chain of Arg-160 may also form a hydrogen bonding interaction with the β-lactam carbonyl.

It needs to be borne in mind that protein specificity is generally controlled by more than one amino acid. To alter the specificity of a protein in a major way is likely to require more than one of the mutational changes suggested below, although each of the mutations will contribute. With this in mind, preferred residues to modify for the expansion of a penicillin are as follows:

a)   Arg-266. This residue binds with the α-aminoadipate side chain of the natural substrate and should be changed to a residue of more hydrophobic character, e.g. Phe, Ala, Val, Leu, Ile.

b)   Thr-72. This should be changed to a hydrophobic residue e.g. Val, Leu, Ile, Phe, Ala, to help bind the hydrophobic side chain of penicillin G. It should be effective in combination with other mutants.

c)   Arg-74 may be usefully changed to a neutral or hydrophobic residue (Phe, Tyr, Val, Leu, Ile, Ala). Modification of Arg-75 may be necessary in addition because it forms a hydrogen-bonding network with Arg-74.

d)   Glu-156. This residue binds with the α-aminoadipate side chain. It should be changed to one of Ala, Val, Leu, Ile, Phe, Tyr, Trp, Asn, Gln, Ser.

e)   The side chains of Leu-158, Asn-301 and Tyr-302 form part of the binding pocket for the penicillin side chain and can be usefully modified to more hydrophobic character.

f)   Asn-304. This residue binds the amide linking the side chain to the penam nucleus. Modification is effected to expand penicillins with shortened or no side chains (e.g. to Asp or Glu for 6-Apa).

- 8 -

Note that other changes may be used to construct part or all of a side chain binding pocket via hydrogen bonding or other interactions.

The insertion or deletion of residues into the DAOCS sequence may also be of use in constructing a hydrophobic binding pocket

5   for the penicillin side chain. Insertion of hydrophobic residues into the C-terminal region (residue 300-311 and in particular 301-303) may assist in the construction of a hydrophobic binding pocket for penicillin side chains.

In another aspect the invention provides an enzyme having significant (as herein defined) sequence similarity to DAOCS wherein the

10   penicillin/cephalosporin binding site of penicillin N or DAOC is modified and at at least one of the following amino acid residues is changed or deleted: Ile88, Arg160, Arg162, Phe164, Met180, Thr190, Ile192, Phe225, Pro241, Val245, Val262, Phe264, Asn304, Ile305, Arg306, Arg307; and/or at least one additional amino acid residue is inserted within the region 300-311;

15   provided that other residues interacting with the above may be changed in order to accommodate the change in one of the above.

Further discussion of this aspect may be found in Nature Volume 394, pages 805-809 published on 20 August 1998 and incorporated by reference herein.

20   Another aspect of the invention refers to the use of the structure of DAOCS in order to modify its active site (or that of a structurally related 2-oxoglutarate dependent dioxygenase) in order that the modified enzyme accepts non beta lactam substrates in order to produce oxidised compounds of value. Oxidised amino acids (e.g.

25   4-hydroxyprolines, hydroxylysines, hydroxyaspartic acids and others) are useful as synthetic intermediates in the production of valuable materials. Using the structure of DAOCS specific residues can be targeted for modification in order that the modified enzyme can be used to produce oxidised amino acids or peptides. The process may include modification of

30   the following residues:

- 9 -

Arg74, Glu156, Leu158, Arg160, Arg162, Leu186, Ser187,
Phe225, Phe264, Arg266, Asp301, Tyr302, Val303, Asn304, Ile88,
Arg162, Phe164, Met180, Thr190, Ile192, Pro241, Val245, Val262, Ile305,
Arg306, Arg307.

5   Another aspect of the invention refers to the use of the
DAOCS structure for the design of selective inhibitors of 2-oxoglutarate
dependent dioxygenases. The 2-oxoglutarate dependent dioxygenase
prolyl 4-hydroxylase has been the target of inhibition in order to provide a
therapeutic treatment for fibrotic diseases (e.g. liver cirrhosis, arthritis).
10   However, no inhibitors are in clinical use, probably because it is difficult to
achieve selective inhibition of the target enzyme for inhibition over other
enzymes (including 2-oxoglutarate dependent enzymes). The structure of
DAOCS provides a template for the design of inhibitors of 2-oxoglutarate
dependent dioxygenases.

15   Set out below are two high resolution crystal structures for
DAOCS from *S. clavuligerus*: the structure of the iron-free apoenzyme
(Structure A) and the structure of the complex with Fe(II) and
2-oxoglutarate (Structure B). The results imply a mechanism by which the
enzyme-Fe(II) complex reacts with 2-oxoglutarate and dioxygen to give the
20   reactive ferryl species, a process common to many non-haem oxygenases.
Other notable 2-oxoacid-dependent ferrous enzymes are prolyl
hydroxylase, involved in collagen biosynthesis, gibberellin 3β-hydroxylase,
a mutation of which influences stem length in plants, and clavaminic acid
synthase, involved in the biosynthesis of the β-lactamase inhibitor,
25   clavulanic acid. Within the family of 2-oxoacid-dependent enzymes,
DAOCS belongs to a sub-family, the members of which show sequence
similarity with IPNS and 1-aminocyclopropane-1-carboxylate oxidase (the
ethylene forming enzyme), enzymes that do not use a 2-oxoacid in
catalysis.

30   The iron-free form of DAOCS crystallises in space group R3

as a crystallographic trimer. The main chain of the protein folds into a conserved jelly roll core with flanking helices.

Co-ordinates and structure factors have been deposited with the Protein Data Bank (entries 1rxg, and r1rxgsf for the Fe(II)-2-oxoglutarate complex).

LEGENDS TO FIGURES.

Figure 1: the biosynthetic pathway to the penicillins and cephalosporins.

Figure 2 is a view of the active site of DAOCS showing 2-oxoglutarate binding to the iron and proposed penicillin N binding. Interactions with the side chains of certain amino acid residues are indicated by arrows.

Structure A is a three-dimensional structure of DAOCS.

Structure B is a high resolution crystal structure for prokaryotic DAOCS from S. clavuligerus as a complex with Fe(II) and 2-oxoglutarate.

The peptide sequence of DAOCS (with the numbering used herein) is set out below:

```
      Met Asp Thr Thr Val Pro Thr Phe Ser Leu        10
      Ala Glu Leu Gln Gln Gly Leu His Gln Asp        20
      Glu Phe Arg Arg Cys Leu Arg Asp Lys Gly        30
      Leu Phe Tyr Leu Thr Asp Cys Gly Leu Thr        40
 5    Asp Thr Glu Leu Lys Ser Ala Lys Asp Leu        50
      Val Ile Asp Phe Phe Glu His Gly Ser Glu        60
      Ala Glu Lys Arg Ala Val Thr Ser Pro Val        70
      Pro Thr Met Arg Arg Gly Phe Thr Gly Leu        80
      Glu Ser Glu Ser Thr Ala Gln Ile Thr Asn        90
10    Thr Gly Ser Tyr Ser Asp Tyr Ser Met Cys       100
      Tyr Ser Met Gly Thr Ala Asp Asn Leu Phe       110
      Pro Ser Gly Asp Phe Gly Arg Ile Trp Thr       120
      Gln Tyr Phe Asp Arg Gln Tyr Thr Ala Ser       130
      Arg Ala Val Ala Arg Glu Val Leu Arg Ala       140
15    Thr Gly Thr Glu Pro Asp Gly Gly Val Glu       150
      Ala Phe Leu Asp Cys Glu Pro Leu Leu Arg       160
      Phe Arg Tyr Phe Pro Gln Val Pro Glu His       170
      Arg Ser Ala Glu Glu Gln Pro Leu Arg Met       180
      Ala Pro His Tyr Asp Leu Ser Met Val Thr       190
20    Leu Ile Gln Gln Thr Pro Cys Ala Asn Gly       200
      Phe Val Ser Leu Gln Ala Glu Val Gly Gly       210
      Ala Phe Thr Asp Leu Pro Tyr Arg Pro Asp       220
      Ala Val Leu Val Phe Cys Gly Ala Ile Ala       230
      Thr Leu Val Thr Gly Gly Gln Val Lys Ala       240
25    Pro Arg His His Val Ala Ala Pro Arg Arg       250
      Asp Gln Ile Ala Gly Ser Ser Arg Thr Ser       260
      Ser Val Phe Phe Leu Arg Pro Asn Ala Asp       270
      Phe Thr Phe Ser Val Pro Leu Ala Arg Glu       280
      Cys Gly Phe Asp Val Ser Leu Asp Gly Glu       290
30    Thr Ala Thr Phe Gln Asp Trp Ile Gly Gly       300
      Asn Tyr Val Asn Ile Arg Arg Thr Ser Lys       310
      Ala                                           311
```

STRUCTURE A

CRYST1	106.400	106.400	71.100	90.00	90.00	120.00
SCALE1	0.009398	0.005426	0.000000	0.000000		
SCALE2	0.000000	0.010852	0.000000	0.000000		
SCALE3	0.000000	0.000000	0.014065	0.000000		

```
ATOM       1    N   AMET 1     31.434  10.641  59.873 0.542 44.31
ANISOU     1    N   AMET 1     8315    2319    6203    -614 -3454  -791
ATOM       2    CA  AMET 1     30.985  11.769  59.065 0.542 39.90
ANISOU     2    CA  AMET 1     9037    3006    3117    -786 -1026  -296
ATOM       3    C   AMET 1     30.472  12.900  59.956 0.542 28.97
ANISOU     3    C   AMET 1     4807    3113    3086    -421 -2189  -119
ATOM       4    O   AMET 1     29.961  12.670  61.055 0.542 28.12
ANISOU     4    O   AMET 1     3925    2381    4377    -402 -1097   7 4
ATOM       5    CB  AMET 1     29.970  11.328  58.023 0.542 34.85
ANISOU     5    CB  AMET 1     7877    3692    1672      30  -91 -373
ATOM       6    CG  AMET 1     28.626  12.015  57.903 0.542 38.19
ANISOU     6    CG  AMET 1     7367    4873    2270     133  912 -1765
ATOM       7    SD  AMET 1     27.564  11.232  56.654 0.542 47.19
ANISOU     7    SD  AMET 1     6146    7957    3827   -2344 1050 -1326
ATOM       8    CE  AMET 1     28.129  11.973  55.135 0.542 27.10
ANISOU     8    CE  AMET 1     5030    2111    3155    2345 -1467  - 9
ATOM       9    N   AASP 2     30.592  14.105  59.425 0.268 30.20
ANISOU     9    N   AASP 2     4674    3022    3777   -1210 -782 -383
ATOM      10    CA  AASP 2     29.993  15.322  59.963 0.268 34.22
ANISOU    10    CA  AASP 2     5567    2803    4633   -1106 -964 -525
ATOM      11    C   AASP 2     28.494  15.268  59.655 0.268 33.34
ANISOU    11    C   AASP 2     5665    1997    5006    -314 -1457  877
ATOM      12    O   AASP 2     28.099  15.650  58.551 0.268 44.76
ANISOU    12    O   AASP 2     6859    5248    4901   -1023 -1582 1631
ATOM      13    CB  AASP 2     30.629  16.528  59.281 0.268 25.98
ANISOU    13    CB  AASP 2     4424    3085    2361     322 -1794  582
ATOM      14    CG  AASP 2     29.978  17.862  59.553 0.268 38.05
ANISOU    14    CG  AASP 2     6456    2611    5389    -501 -608 -1114
ATOM      15    OD1 AASP 2     28.995  17.937  60.318 0.268 42.35
ANISOU    15    OD1 AASP 2     6406     504 9179     873   920 1991
ATOM      16    OD2 AASP 2     30.449  18.885  58.997 0.268 28.59
ANISOU    16    OD2 AASP 2     1619    2901    6341     790 -1022 -253
ATOM      17    N   BMET 1     32.709  12.640  58.544 0.458 29.49
ANISOU    17    N   BMET 1     4552    2218    4435    -105 1580  477
ATOM      18    CA  BMET 1     31.874  13.050  57.425 0.458 40.62
ANISOU    18    CA  BMET 1     4228    4809    6395     580  210 1 03
ATOM      19    C   BMET 1     30.884  14.113  57.894 0.458 38.21
ANISOU    19    C   BMET 1     5082    3637    5797     282 -909 -915
ATOM      20    O   BMET 1     30.075  14.599  57.110 0.458 44.81
ANISOU    20    O   BMET 1     8292    3208    5525    2071 -656 - 12
ATOM      21    CB  BMET 1     31.131  11.857  56.829 0.458 33.14
ANISOU    21    CB  BMET 1     4866    2613    5114    2013 -122 818
ATOM      22    CG  BMET 1     29.625  11.840  56.968 0.458 40.28
ANISOU    22    CG  BMET 1     4795    5740    4768     230 -751 5 3
ATOM      23    SD  BMET 1     28.761  11.495  55.422 0.458 34.23
ANISOU    23    SD  BMET 1     5619    3819    3566    2050 -215 2 0
ATOM      24    CE  BMET 1     29.953  12.079  54.222 0.458 54.24
ANISOU    24    CE  BMET 1     10672   4519    5420    1149 4083 -2463
ATOM      25    N   BASP 2     30.914  14.381  59.194 0.732 37.72
ANISOU    25    N   BASP 2     4433    3914    5984   -1323 -1208 -1385
ATOM      26    CA  BASP 2     29.979  15.308  59.811 0.732 35.78
ANISOU    26    CA  BASP 2     5412    3387    4794   -1064 -1050 -795
ATOM      27    C   BASP 2     28.536  14.886  59.567 0.732 29.66
ANISOU    27    C   BASP 2     4876    1624    4771      27 -1561 1218
ATOM      28    O   BASP 2     28.181  14.602  58.414 0.732 34.65
ANISOU    28    O   BASP 2     4375    3689    5100      65 -1485 247
ATOM      29    CB  BASP 2     30.195  16.696  59.181 0.732 37.39
ANISOU    29    CB  BASP 2     6632    3351    4222   -1850  869 -1518
ATOM      30    CG  BASP 2     29.562  17.730  60.104 0.732 30.38
ANISOU    30    CG  BASP 2     3243    3791    4510    -500 -606 -1191
ATOM      31    OD1 BASP 2     28.866  17.247  61.030 0.732 48.88
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ANISOU 31     OD1 BASP 2    6276     4203     8095   -1203 3147 -1901
ATOM   32     OD2 BASP 2   29.760   18.945   59.875 0.732 34.85
ANISOU 32     OD2 BASP 2    2852     3708     6680   -491   444  -1450
ATOM   33     N   THR  3   27.717   14.789   60.606 1.000 35.58
ANISOU 33     N   THR  3    4586     4123     4811    601 -1628  1516
ATOM   34     CA  THR  3   26.303   14.433   60.495 1.000 40.48
ANISOU 34     CA  THR  3    4650     4555     6175    371  -911  -385
ATOM   35     C   THR  3   25.382   15.647   60.611 1.000 39.82
ANISOU 35     C   THR  3    4376     4155     6598    320 -3864  -586
ATOM   36     O   THR  3   24.150   15.556   60.751 1.000 33.55
ANISOU 36     O   THR  3    4668     3107     4972    357 -2748  -588
ATOM   37     CB  THR  3   25.905   13.450   61.613 1.000 39.95
ANISOU 37     CB  THR  3    3787     4004     7387    160 -1209    62
ATOM   38     OG1 THR  3   26.591   13.851   62.817 1.000 61.83
ANISOU 38     OG1 THR  3   10134     5882     7476  -4164 -3020  2051
ATOM   39     CG2 THR  3   26.399   12.052   61.278 1.000 59.32
ANISOU 39     CG2 THR  3    4613     3971    13955   1114 -3135  -198
ATOM   40     N   THR  4   26.036   16.780   60.456 1.000 32.55
ANISOU 40     N   THR  4    4306     4611     3450    377 -2166  -217
ATOM   41     CA  THR  4   25.439   18.092   60.393 1.000 31.22
ANISOU 41     CA  THR  4    4275     4229     3358    -81 -1179    95
ATOM   42     C   THR  4   24.672   18.272   59.090 1.000 30.06
ANISOU 42     C   THR  4    4876     3341     3207    773 -1156  -204
ATOM   43     O   THR  4   25.195   17.935   58.017 1.000 31.64
ANISOU 43     O   THR  4    4877     3780     3363   1935 -1255   -52
ATOM   44     CB  THR  4   26.510   19.208   60.407 1.000 32.31
ANISOU 44     CB  THR  4    2320     4762     5194    475  -547   593
ATOM   45     OG1 THR  4   27.324   19.091   61.578 1.000 32.36
ANISOU 45     OG1 THR  4    3705     3955     4635    -79  -797  -389
ATOM   46     CG2 THR  4   25.852   20.582   60.458 1.000 27.22
ANISOU 46     CG2 THR  4    3728     4174     2443     71   304  -151
ATOM   47     N   VAL  5   23.464   18.796   59.211 1.000 21.69
ANISOU 47     N   VAL  5    4041     1985     2215   -543  -657   158
ATOM   48     CA  VAL  5   22.690   19.140   58.024 1.000 20.42
ANISOU 48     CA  VAL  5    3675     1964     2120   -622  -517   103
ATOM   49     C   VAL  5   23.199   20.489   57.499 1.000 17.01
ANISOU 49     C   VAL  5    2263     1803     2396   -279  -622    89
ATOM   50     O   VAL  5   23.156   21.449   58.252 1.000 21.10
ANISOU 50     O   VAL  5    3662     1885     2472   -389  -656    16
ATOM   51     CB  VAL  5   21.204   19.216   58.402 1.000 24.22
ANISOU 51     CB  VAL  5    3551     2155     3495  -1045  -396   783
ATOM   52     CG1 VAL  5   20.434   19.700   57.166 1.000 20.14
ANISOU 52     CG1 VAL  5    3202     1779     2672   -453    10  -226
ATOM   53     CG2 VAL  5   20.701   17.867   58.860 1.000 28.58
ANISOU 53     CG2 VAL  5    5258     2086     3516  -1226   431   510
ATOM   54     N   PRO  6   23.750   20.542   56.300 1.000 16.95
ANISOU 54     N   PRO  6    2378     1629     2434     29  -594   301
ATOM   55     CA  PRO  6   24.354   21.793   55.857 1.000 16.90
ANISOU 55     CA  PRO  6    1645     1775     3000      6  -445   303
ATOM   56     C   PRO  6   23.298   22.800   55.383 1.000 15.61
ANISOU 56     C   PRO  6    1477     1766     2687   -192  -437   545
ATOM   57     O   PRO  6   22.133   22.432   55.201 1.000 15.75
ANISOU 57     O   PRO  6    1578     1761     2647   -260  -579    55
ATOM   58     CB  PRO  6   25.216   21.375   54.682 1.000 19.85
ANISOU 58     CB  PRO  6    2320     1752     3468     50    70   182
ATOM   59     CG  PRO  6   24.632   20.095   54.187 1.000 24.76
ANISOU 59     CG  PRO  6    3550     2953     2904  -1186   300  -286
ATOM   60     CD  PRO  6   23.926   19.428   55.357 1.000 17.91
ANISOU 60     CD  PRO  6    1960     1962     2882   -168  -138   -44
ATOM   61     N   THR  7   23.723   24.031   55.156 1.000 14.38
ANISOU 61     N   THR  7    1518     1567     2378   -158  -616   100
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ATOM    62  CA  THR  7   22.907  25.103  54.610 1.000 14.09
ANISOU  62  CA  THR  7   1625    1554    2174   -255  -581 228
ATOM    63  C   THR  7   23.605  25.684  53.374 1.000 14.74
ANISOU  63  C   THR  7   1683    1849    2067   -193  -468 121
ATOM    64  O   THR  7   24.828  25.894  53.423 1.000 15.95
ANISOU  64  O   THR  7   1752    2137    2171   -378  -457 185
ATOM    65  CB  THR  7   22.795  26.248  55.637 1.000 15.25
ANISOU  65  CB  THR  7   1548    1846    2401   56   -124  5 2
ATOM    66  OG1 THR  7   22.208  25.717  56.829 1.000 16.91
ANISOU  66  OG1 THR  7   1818    2149    2458   -402  -183 4 7
ATOM    67  CG2 THR  7   21.952  27.387  55.040 1.000 16.09
ANISOU  67  CG2 THR  7   1651    1613    2848   -138  -263 - 25
ATOM    68  N   PHE  8   22.830  25.892  52.325 1.000 15.06
ANISOU  68  N   PHE  8   1966    1618    2137   -411  -558 230
ATOM    69  CA  PHE  8   23.317  26.545  51.136 1.000 14.76
ANISOU  69  CA  PHE  8   1857    1558    2192   -213  -411 281
ATOM    70  C   PHE  8   22.421  27.728  50.810 1.000 14.94
ANISOU  70  C   PHE  8   1907    1421    2347   -275  -357 181
ATOM    71  O   PHE  8   21.198  27.678  50.995 1.000 16.40
ANISOU  71  O   PHE  8   1782    1642    2808   -197  -550 3 4
ATOM    72  CB  PHE  8   23.242  25.562  49.948 1.000 16.49
ANISOU  72  CB  PHE  8   2123    1854    2287   49   -371  - 1
ATOM    73  CG  PHE  8   24.225  24.432  50.027 1.000 14.92
ANISOU  73  CG  PHE  8   1710    1824    2135   -197  -365 163
ATOM    74  CD1 PHE  8   23.822  23.227  50.600 1.000 16.78
ANISOU  74  CD1 PHE  8   1808    1726    2842   -300  -358 184
ATOM    75  CD2 PHE  8   25.539  24.558  49.602 1.000 16.67
ANISOU  75  CD2 PHE  8   1705    2130    2500   -310  -361 321
ATOM    76  CE1 PHE  8   24.702  22.183  50.742 1.000 16.74
ANISOU  76  CE1 PHE  8   2035    1966    2359   -4   -99  295
ATOM    77  CE2 PHE  8   26.420  23.525  49.773 1.000 19.18
ANISOU  77  CE2 PHE  8   1398    2153    3736   -408  -631 187
ATOM    78  CZ  PHE  8   26.026  22.336  50.351 1.000 17.90
ANISOU  78  CZ  PHE  8   1849    2003    2948   -119  -376 2 0
ATOM    79  N   SER  9   23.023  28.776  50.314 1.000 14.82
ANISOU  79  N   SER  9   2134    1488    2008   -351  -528 310
ATOM    80  CA  SER  9   22.338  29.902  49.715 1.000 15.12
ANISOU  80  CA  SER  9   2037    1259    2449   -357  -571 134
ATOM    81  C   SER  9   21.977  29.607  48.270 1.000 16.19
ANISOU  81  C   SER  9   2138    1791    2224   -374  -535 5 47
ATOM    82  O   SER  9   22.877  29.312  47.473 1.000 17.04
ANISOU  82  O   SER  9   2191    1892    2393   -423  -544 2 32
ATOM    83  CB  SER  9   23.306  31.113  49.696 1.000 18.74
ANISOU  83  CB  SER  9   2891    1712    2519   -1012 -478 7 17
ATOM    84  OG  SER  9   22.738  32.131  48.853 1.000 20.82
ANISOU  84  OG  SER  9   2866    1569    3477   -662  -854 6 07
ATOM    85  N   LEU 10   20.697  29.674  47.924 1.000 16.46
ANISOU  85  N   LEU 10   2215    1495    2542   -228  -740 - 48
ATOM    86  CA  LEU 10   20.345  29.401  46.529 1.000 17.55
ANISOU  86  CA  LEU 10   2263    1856    2551   -582  -694 3 6
ATOM    87  C   LEU 10   21.079  30.373  45.591 1.000 18.84
ANISOU  87  C   LEU 10   2506    1870    2784   -596  -830 3 57
ATOM    88  O   LEU 10   21.573  30.025  44.520 1.000 20.19
ANISOU  88  O   LEU 10   2705    2263    2704   -524  -663 5 08
ATOM    89  CB  LEU 10   18.844  29.559  46.327 1.000 18.87
ANISOU  89  CB  LEU 10   2302    2516    2354   -288  -715 2 80
ATOM    90  CG  LEU 10   18.355  29.333  44.895 1.000 18.28
ANISOU  90  CG  LEU 10   2182    2172    2591   -668  -677 - 3 01
ATOM    91  CD1 LEU 10   18.708  27.955  44.397 1.000 22.45
ANISOU  91  CD1 LEU 10   3418    2024    3089   -308  -537 1 7
ATOM    92  CD2 LEU 10   16.852  29.603  44.869 1.000 21.93
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ANISOU  92   CD2 LEU  10   2250     2658     3424    -504  -1139   7  5
ATOM    93   N   ALA  11   21.154   31.638   46.037  1.000 20.05
ANISOU  93   N   ALA  11   2862     1780     2977    -595  -1279   4 72
ATOM    94   CA  ALA  11   21.810   32.647   45.202  1.000 24.24
ANISOU  94   CA  ALA  11   3160     1670     4380    -455  -979   89  1
ATOM    95   C   ALA  11   23.285   32.309   44.946  1.000 21.06
ANISOU  95   C   ALA  11   3128     1937     2937    -644  -1016  43  1
ATOM    96   O   ALA  11   23.819   32.447   43.829  1.000 26.29
ANISOU  96   O   ALA  11   3569     3261     3158    -1628 -923  1137
ATOM    97   CB  ALA  11   21.752   33.989   45.953  1.000 24.29
ANISOU  97   CB  ALA  11   3740     1692     3797    -461  -216   99  6
ATOM    98   N   GLU  12   23.953   31.844   46.005  1.000 20.65
ANISOU  98   N   GLU  12   2829     1975     3044    -828  -930   67  4
ATOM    99   CA  GLU  12   25.354   31.463   45.862  1.000 21.19
ANISOU  99   CA  GLU  12   3036     2400     2615    -506  -715   59  8
ATOM   100   C   GLU  12   25.483   30.277   44.920  1.000 21.56
ANISOU 100   C   GLU  12   3894     2179     2117    -702  -206   98  8
ATOM   101   O   GLU  12   26.375   30.215   44.069  1.000 21.98
ANISOU 101   O   GLU  12   3463     2917     1971    -1144 -488   6  18
ATOM   102   CB  GLU  12   26.032   31.170   47.204  1.000 20.27
ANISOU 102   CB  GLU  12   2874     2192     2636    -221  -624   50  1
ATOM   103   CG  GLU  12   26.156   32.451   48.032  1.000 20.54
ANISOU 103   CG  GLU  12   2889     2316     2598    -344  -516   40  6
ATOM   104   CD  GLU  12   26.787   32.279   49.389  1.000 21.86
ANISOU 104   CD  GLU  12   3146     2542     2619    -1297 -612   79  9
ATOM   105   OE1 GLU  12   27.068   31.149   49.803  1.000 24.98
ANISOU 105   OE1 GLU  12   3642     2681     3169    -1348 -1088 1134
ATOM   106   OE2 GLU  12   26.819   33.305   50.092  1.000 33.52
ANISOU 106   OE2 GLU  12   5881     2966     3888    -1119 -2251  4  6
ATOM   107   N   LEU  13   24.600   29.295   45.060  1.000 18.91
ANISOU 107   N   LEU  13   2567     2345     2275    -351  -390   3 82
ATOM   108   CA  LEU  13   24.645   28.117   44.174  1.000 18.61
ANISOU 108   CA  LEU  13   2575     2347     2149    -209  270    4 06
ATOM   109   C   LEU  13   24.432   28.566   42.738  1.000 21.40
ANISOU 109   C   LEU  13   3558     2367     2206    -709  -41    5 26
ATOM   110   O   LEU  13   25.102   28.095   41.824  1.000 23.75
ANISOU 110   O   LEU  13   3827     3216     1981    -823  -117  19  0
ATOM   111   CB  LEU  13   23.541   27.137   44.562  1.000 18.97
ANISOU 111   CB  LEU  13   2982     2243     1984    -462  -145   44  0
ATOM   112   CG  LEU  13   23.773   26.344   45.860  1.000 18.57
ANISOU 112   CG  LEU  13   2313     2322     2422    -467  -362   7 45
ATOM   113   CD1 LEU  13   22.526   25.480   46.070  1.000 20.74
ANISOU 113   CD1 LEU  13   2769     2266     2845    -789  -142   5 94
ATOM   114   CD2 LEU  13   25.023   25.473   45.858  1.000 19.80
ANISOU 114   CD2 LEU  13   2709     2229     2585    -244  -509  -1 07
ATOM   115   N   GLN  14   23.544   29.508   42.478  1.000 22.03
ANISOU 115   N   GLN  14   3596     2139     2635    -960  -903   3 79
ATOM   116   CA  GLN  14   23.284   29.978   41.104  1.000 23.79
ANISOU 116   CA  GLN  14   3010     3335     2694    -992  -816   6 48
ATOM   117   C   GLN  14   24.481   30.712   40.509  1.000 25.44
ANISOU 117   C   GLN  14   3360     3427     2881    -1070 -382   4 87
ATOM   118   O   GLN  14   24.655   30.829   39.288  1.000 30.04
ANISOU 118   O   GLN  14   3836     4657     2922    -1208 -427   8 98
ATOM   119   CB  GLN  14   22.064   30.906   41.131  1.000 26.28
ANISOU 119   CB  GLN  14   3133     3630     3222    -760  -863   9 38
ATOM   120   CG  GLN  14   20.772   30.111   41.355  1.000 23.26
ANISOU 120   CG  GLN  14   3106     2319     3413    -299  -577   5 14
ATOM   121   CD  GLN  14   19.586   31.020   41.631  1.000 23.69
ANISOU 121   CD  GLN  14   3384     2462     3155    -317  -393  -1 96
ATOM   122   OE1 GLN  14   19.734   32.104   42.160  1.000 28.34
ANISOU 122   OE1 GLN  14   4973     2619     3175    -183  -732  -4 08
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ATOM    123   NE2 GLN   14    18.398   30.513   41.349 1.000 23.60
ANISOU  123   NE2 GLN   14    3058     2969     2941    -383   54 245
ATOM    124   N   GLN   15    25.309   31.243   41.395 1.000 25.00
ANISOU  124   N   GLN   15    3078     3281     3140    -1159 -394 575
ATOM    125   CA  GLN   15    26.530   31.936   40.945 1.000 24.05
ANISOU  125   CA  GLN   15    2947     3560     2631    -866   -98 655
ATOM    126   C   GLN   15    27.650   30.920   40.707 1.000 26.06
ANISOU  126   C   GLN   15    3810     3951     2139    -345  406 668
ATOM    127   O   GLN   15    28.756   31.284   40.302 1.000 35.85
ANISOU  127   O   GLN   15    4294     4851     4476    102  1871 1192
ATOM    128   CB  GLN   15    27.018   32.918   42.009 1.000 25.90
ANISOU  128   CB  GLN   15    3055     3037     3748    -1092 -109 364
ATOM    129   CG  GLN   15    26.103   34.092   42.219 1.000 31.24
ANISOU  129   CG  GLN   15    4562     2577     4731    -806  962 1054
ATOM    130   CD  GLN   15    26.503   35.022   43.348 1.000 59.75
ANISOU  130   CD  GLN   15    9927     2475     10301   -1855 -14 -1904
ATOM    131   OE1 GLN   15    27.634   35.031   43.840 1.000 81.81
ANISOU  131   OE1 GLN   15    15059    3931     12094   -944 -6272 -1803
ATOM    132   NE2 GLN   15    25.539   35.841   43.767 1.000 91.46
ANISOU  132   NE2 GLN   15    14070    4846     15833   -923 3672 -4850
ATOM    133   N   GLY   16    27.379   29.643   40.969 1.000 29.90
ANISOU  133   N   GLY   16    4634     3820     2907    -239   22 787
ATOM    134   CA  GLY   16    28.410   28.649   40.699 1.000 28.76
ANISOU  134   CA  GLY   16    4466     3629     2833    -709  461 250
ATOM    135   C   GLY   16    29.339   28.473   41.878 1.000 27.60
ANISOU  135   C   GLY   16    3816     3779     2891    -616  914 1485
ATOM    136   O   GLY   16    30.398   27.867   41.725 1.000 31.47
ANISOU  136   O   GLY   16    3386     4758     3814    -899 1243 1023
ATOM    137   N   LEU   17    28.960   28.898   43.083 1.000 26.01
ANISOU  137   N   LEU   17    3295     3636     2950    -721  162 743
ATOM    138   CA  LEU   17    29.776   28.666   44.257 1.000 23.96
ANISOU  138   CA  LEU   17    2700     3032     3372    -601  100 673
ATOM    139   C   LEU   17    29.462   27.338   44.932 1.000 20.31
ANISOU  139   C   LEU   17    2222     2763     2733    -252  611 261
ATOM    140   O   LEU   17    28.389   26.780   44.789 1.000 23.13
ANISOU  140   O   LEU   17    2347     3134     3308    -443  263 859
ATOM    141   CB  LEU   17    29.645   29.806   45.286 1.000 25.94
ANISOU  141   CB  LEU   17    2886     2933     4035    -1318 -405 254
ATOM    142   CG  LEU   17    29.962   31.209   44.716 1.000 31.57
ANISOU  142   CG  LEU   17    3741     2948     5308    -523 1150 722
ATOM    143   CD1 LEU   17    29.550   32.358   45.615 1.000 32.04
ANISOU  143   CD1 LEU   17    5221     2887     4066    -1269 278 508
ATOM    144   CD2 LEU   17    31.458   31.278   44.416 1.000 38.11
ANISOU  144   CD2 LEU   17    3828     5491     5160    -2315 954 232
ATOM    145   N   HIS   18    30.441   26.822   45.681 1.000 22.49
ANISOU  145   N   HIS   18    2600     3067     2877    -662   42 449
ATOM    146   CA  HIS   18    30.289   25.644   46.537 1.000 21.54
ANISOU  146   CA  HIS   18    2378     2809     2996    -432  201 313
ATOM    147   C   HIS   18    29.908   24.376   45.790 1.000 22.76
ANISOU  147   C   HIS   18    2256     3245     3148    -1009 282 114
ATOM    148   O   HIS   18    29.147   23.565   46.331 1.000 22.60
ANISOU  148   O   HIS   18    2008     3064     3516    -629 -166 884
ATOM    149   CB  HIS   18    29.224   25.872   47.618 1.000 22.81
ANISOU  149   CB  HIS   18    2514     2879     3272    -526  450 421
ATOM    150   CG  HIS   18    29.320   27.248   48.217 1.000 21.70
ANISOU  150   CG  HIS   18    2797     3038     2411    -149   39 503
ATOM    151   ND1 HIS   18    30.438   27.773   48.807 1.000 25.01
ANISOU  151   ND1 HIS   18    3714     3505     2234    -207 -629 149
ATOM    152   CD2 HIS   18    28.370   28.216   48.269 1.000 24.95
ANISOU  152   CD2 HIS   18    3244     3278     2957    87   544 275
ATOM    153   CE1 HIS   18    30.197   28.982   49.223 1.000 29.26
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ANISOU   153   CE1  HIS   18    4603                 3396      3118   -388   -335   2 7
ATOM     154   NE2  HIS   18   28.937   29.271   48.919  1.000  27.24
ANISOU   154   NE2  HIS   18    4582                 3137      2632    2    224   3 6 5
ATOM     155   N    GLN   19   30.269   24.270   44.521  1.000  22.74
ANISOU   155   N    GLN   19    2724                 3094      2822   -511   -123   4 2 3
ATOM     156   CA   GLN   19   29.806   23.113   43.730  1.000  23.85
ANISOU   156   CA   GLN   19    3129                 2668      3263    148    63    8 9
ATOM     157   C    GLN   19   30.271   21.760   44.221  1.000  22.77
ANISOU   157   C    GLN   19    2532                 3026      3095   -502   -574   7 7 8
ATOM     158   O    GLN   19   29.480   20.801   44.259  1.000  21.99
ANISOU   158   O    GLN   19    1869                 2911      3574   -187    0     5 5 8
ATOM     159   CB   GLN   19   30.227   23.322   42.276  1.000  27.66
ANISOU   159   CB   GLN   19    5043                 2519      2947    29   -339   4 5 8
ATOM     160   CG   GLN   19   29.397   24.333   41.523  1.000  26.21
ANISOU   160   CG   GLN   19    3289                 3163      3508    299    171   4 3 7
ATOM     161   CD   GLN   19   27.917   24.368   41.862  1.000  32.47
ANISOU   161   CD   GLN   19    3403                 4411      4521   -986    535   6 5 4
ATOM     162   OE1  GLN   19   27.154   23.604   41.277  1.000  39.69
ANISOU   162   OE1  GLN   19    3996                 4238      6845   -262  -2770  18 2 9
ATOM     163   NE2  GLN   19   27.511   25.212   42.811  1.000  42.55
ANISOU   163   NE2  GLN   19    3803                 6153      6212    81   1944   1 1
ATOM     164   N    ASP   20   31.526   21.572   44.631  1.000  22.63
ANISOU   164   N    ASP   20    2073                 3400      3123   -414    95    7 0 8
ATOM     165   CA   ASP   20   31.926   20.292   45.225  1.000  23.10
ANISOU   165   CA   ASP   20    1869                 3674      3235    83    236   7 0 4
ATOM     166   C    ASP   20   31.190   20.042   46.546  1.000  20.03
ANISOU   166   C    ASP   20    1775                 2963      2873   -280   -143   4 9 3
ATOM     167   O    ASP   20   30.772   18.899   46.768  1.000  21.48
ANISOU   167   O    ASP   20    1429                 2884      3848   -311    225   2 2 4
ATOM     168   CB   ASP   20   33.414   20.268   45.521  1.000  27.66
ANISOU   168   CB   ASP   20    1835                 4546      4130    -16    207   8 8 1
ATOM     169   CG   ASP   20   34.298   20.206   44.291  1.000  39.35
ANISOU   169   CG   ASP   20    2355                 6893      5705   -654   1323  -19 1 5
ATOM     170   OD1  ASP   20   33.870   19.914   43.153  1.000  35.78
ANISOU   170   OD1  ASP   20    3152                 5452      4992   -741   1508  -7 9 7
ATOM     171   OD2  ASP   20   35.508   20.433   44.467  1.000  45.22
ANISOU   171   OD2  ASP   20    2201                 8705      6277   -589   1088  - 8 7
ATOM     172   N    GLU   21   31.046   21.053   47.404  1.000  20.01
ANISOU   172   N    GLU   21    1574                 2935      3093   -412   -241   3 6 7
ATOM     173   CA   GLU   21   30.323   20.811   48.665  1.000  18.97
ANISOU   173   CA   GLU   21    1412                 2956      2838   -481   -464   1 1 8
ATOM     174   C    GLU   21   28.858   20.448   48.402  1.000  17.84
ANISOU   174   C    GLU   21    1386                 2342      3050   -307   -395   2 3 4
ATOM     175   O    GLU   21   28.290   19.602   49.054  1.000  18.46
ANISOU   175   O    GLU   21    1671                 2286      3057   -419   -351   1 1 6
ATOM     176   CB   GLU   21   30.415   22.058   49.563  1.000  20.10
ANISOU   176   CB   GLU   21    1646                 2821      3170   -514   -499   1 2 7
ATOM     177   CG   GLU   21   31.893   22.322   49.918  1.000  24.11
ANISOU   177   CG   GLU   21    1682                 3568      3912   -766   -326  - 7 1 1
ATOM     178   CD   GLU   21   32.574   23.380   49.081  1.000  29.70
ANISOU   178   CD   GLU   21    1330                 4241      5713   -752   -666   5 2 1
ATOM     179   OE1  GLU   21   32.249   23.594   47.887  1.000  35.14
ANISOU   179   OE1  GLU   21    2623                 4054      6677   -1336  -1741  19 7 7
ATOM     180   OE2  GLU   21   33.483   24.007   49.678  1.000  39.39
ANISOU   180   OE2  GLU   21    3681                 4425      6860   -2089  -1618   6 4 7
ATOM     181   N    PHE   22   28.231   21.048   47.395  1.000  17.30
ANISOU   181   N    PHE   22    1540                 2352      2680   -243   -446   - 7 9
ATOM     182   CA   PHE   22   26.851   20.761   47.071  1.000  17.13
ANISOU   182   CA   PHE   22    1534                 2166      2807   -235   -396   3 7 4
ATOM     183   C    PHE   22   26.733   19.329   46.552  1.000  17.41
ANISOU   183   C    PHE   22    1688                 2500      2427   -502   -334   1 0 4
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- 19 -

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ATOM     184  O    PHE  22   25.867  18.574  46.995 1.000 15.87
ANISOU   184  O    PHE  22   1570    2118    2343    -249  -361 131
ATOM     185  CB   PHE  22   26.305  21.840  46.149 1.000 18.00
ANISOU   185  CB   PHE  22   1747    2754    2337    70  -178  445
ATOM     186  CG   PHE  22   24.802  21.729  45.930 1.000 16.38
ANISOU   186  CG   PHE  22   1763    1748    2714    -90  -326 223
ATOM     187  CD1  PHE  22   23.934  21.723  47.003 1.000 18.29
ANISOU   187  CD1  PHE  22   1812    2091    3045    -197  -88  576
ATOM     188  CD2  PHE  22   24.290  21.720  44.641 1.000 18.62
ANISOU   188  CD2  PHE  22   2106    2079    2890    -143  -623 394
ATOM     189  CE1  PHE  22   22.569  21.727  46.771 1.000 18.90
ANISOU   189  CE1  PHE  22   1826    2086    3271    -198  -133 302
ATOM     190  CE2  PHE  22   22.911  21.660  44.379 1.000 19.28
ANISOU   190  CE2  PHE  22   2189    2023    3114    -242  -754 -144
ATOM     191  CZ   PHE  22   22.059  21.645  45.473 1.000 19.42
ANISOU   191  CZ   PHE  22   2048    1723    3607    90  -483  -376
ATOM     192  N    ARG  23   27.580  18.971  45.583 1.000 17.88
ANISOU   192  N    ARG  23   1647    2437    2709    -168  -218 317
ATOM     193  CA   ARG  23   27.520  17.594  45.079 1.000 19.18
ANISOU   193  CA   ARG  23   1724    2539    3022    -166  36  158
ATOM     194  C    ARG  23   27.767  16.595  46.211 1.000 19.11
ANISOU   194  C    ARG  23   1279    2461    3518    -173  -113 455
ATOM     195  O    ARG  23   27.107  15.547  46.229 1.000 18.82
ANISOU   195  O    ARG  23   1614    2156    3381    -33  181  -128
ATOM     196  CB   ARG  23   28.605  17.351  44.030 1.000 22.81
ANISOU   196  CB   ARG  23   1934    4099    2633    -34  -105 -354
ATOM     197  CG   ARG  23   28.248  17.790  42.617 1.000 24.82
ANISOU   197  CG   ARG  23   2601    4078    2752    191  -122 -204
ATOM     198  CD   ARG  23   29.376  17.272  41.685 1.000 29.71
ANISOU   198  CD   ARG  23   2503    5619    3168    -285  908  704
ATOM     199  NE   ARG  23   30.479  18.206  41.800 1.000 30.96
ANISOU   199  NE   ARG  23   2877    5034    3851    -43  286  297
ATOM     200  CZ   ARG  23   30.549  19.360  41.148 1.000 29.49
ANISOU   200  CZ   ARG  23   2612    5063    3529    -225  606  177
ATOM     201  NH1  ARG  23   29.536  19.665  40.328 1.000 29.26
ANISOU   201  NH1  ARG  23   3242    4951    2923    -960  331  525
ATOM     202  NH2  ARG  23   31.629  20.092  41.345 1.000 32.61
ANISOU   202  NH2  ARG  23   2320    5347    4722    -134  519  179
ATOM     203  N    ARG  24   28.708  16.851  47.125 1.000 17.80
ANISOU   203  N    ARG  24   1262    2168    3332    183  38  9  8
ATOM     204  CA   ARG  24   28.930  15.899  48.222 1.000 18.85
ANISOU   204  CA   ARG  24   1368    2509    3287    69  -162  105
ATOM     205  C    ARG  24   27.701  15.811  49.114 1.000 17.51
ANISOU   205  C    ARG  24   1456    2015    3181    132  -177 243
ATOM     206  O    ARG  24   27.333  14.733  49.544 1.000 17.93
ANISOU   206  O    ARG  24   1851    1965    2997    -16  -402 253
ATOM     207  CB   ARG  24   30.203  16.321  48.991 1.000 19.88
ANISOU   207  CB   ARG  24   1685    2700    3169    -398  -218 4  4
ATOM     208  CG   ARG  24   31.459  16.053  48.135 1.000 29.07
ANISOU   208  CG   ARG  24   1467    4625    4954    269  203  709
ATOM     209  CD   ARG  24   32.700  16.206  49.016 1.000 41.84
ANISOU   209  CD   ARG  24   1745    7021    7130    -451  -494 -922
ATOM     210  NE   ARG  24   33.690  17.103  48.464 1.000 57.06
ANISOU   210  NE   ARG  24   4362    9316    8003    -3326 -669 -1141
ATOM     211  CZ   ARG  24   34.032  18.327  48.810 1.000 60.67
ANISOU   211  CZ   ARG  24   5961   10369    6723    -4627 -1324 -1586
ATOM     212  NH1  ARG  24   33.430  18.980  49.799 1.000 49.70
ANISOU   212  NH1  ARG  24   7748    6565    4569    -951  -2185 2226
ATOM     213  NH2  ARG  24   34.997  18.971  48.159 1.000 54.12
ANISOU   213  NH2  ARG  24   8696    8490    3378    -3780 -2352 1607
ATOM     214  N    CYS  25   27.092  16.963  49.370 1.000 15.74
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ANISOU  214   N   CYS  25   1435      1969      2574     -16   -393 - 33
ATOM    215   CA  CYS  25   25.884    16.921    50.223  1.000  16.39
ANISOU  215   CA  CYS  25   1518      1954      2756     -95   -317 -300
ATOM    216   C   CYS  25   24.826    16.068    49.547  1.000  15.73
ANISOU  216   C   CYS  25   1629      1699      2648    -114   -432 6 6
ATOM    217   O   CYS  25   24.124    15.262    50.155  1.000  15.89
ANISOU  217   O   CYS  25   1453      1801      2783     -88   -469 252
ATOM    218   CB  CYS  25   25.367    18.362    50.424  1.000  15.93
ANISOU  218   CB  CYS  25   1644      1779      2629     -49   -261 - 30
ATOM    219   SG  CYS  25   23.700    18.417    51.184  1.000  17.82
ANISOU  219   SG  CYS  25   1742      1825      3202    -122   -33  - 55
ATOM    220   N   LEU  26   24.623    16.308    48.250  1.000  15.25
ANISOU  220   N   LEU  26   1449      1843      2504     -54   -263 -142
ATOM    221   CA  LEU  26   23.560    15.590    47.534  1.000  15.62
ANISOU  221   CA  LEU  26   1616      1739      2580     -86   -453 4 8
ATOM    222   C   LEU  26   23.763    14.085    47.621  1.000  15.18
ANISOU  222   C   LFU  26   1697      1764      2306    -113   -479 6
ATOM    223   O   LEU  26   22.819    13.345    47.771  1.000  16.96
ANISOU  223   O   LEU  26   1797      1725      2920    -234   -664 -300
ATOM    224   CB  LEU  26   23.526    16.068    46.066  1.000  16.02
ANISOU  224   CB  LEU  26   1811      1645      2633    -191   -483 122
ATOM    225   CG  LEU  26   23.057    17.510    45.864  1.000  15.69
ANISOU  225   CG  LEU  26   1762      1716      2485     -6  -15 7 9
ATOM    226   CD1 LEU  26   23.252    17.880    44.405  1.000  17.48
ANISOU  226   CD1 LEU  26   1750      2360      2532     -17   -130 465
ATOM    227   CD2 LEU  26   21.584    17.680    46.290  1.000  17.11
ANISOU  227   CD2 LEU  26   1655      2188      2660     -29   -75 168
ATOM    228   N   ARG  27   25.027    13.648    47.494  1.000  17.26
ANISOU  228   N   ARG  27   1870      1818      2871     155   -326 140
ATOM    229   CA  ARG  27   25.295    12.205    47.372  1.000  18.75
ANISOU  229   CA  ARG  27   2108      1845      3170     270   -955 102
ATOM    230   C   ARG  27   25.240    11.599    48.744  1.000  17.95
ANISOU  230   C   ARG  27   1667      1801      3351     159   -897 219
ATOM    231   O   ARG  27   24.777    10.454    48.913  1.000  20.99
ANISOU  231   O   ARG  27   2158      1793      4026     -43   -360 168
ATOM    232   CB  ARG  27   26.641    12.008    46.670  1.000  21.35
ANISOU  232   CB  ARG  27   2815      2034      3264     622   -377 -129
ATOM    233   N   ASP  28   25.827    12.293    49.723  1.000  16.71
ANISOU  233   N   ASP  28   1487      2004      2856     178   -328 6 7
ATOM    234   CA  ASP  28   26.034    11.672    51.026  1.000  17.47
ANISOU  234   CA  ASP  28   1613      2095      2931     107   -301 127
ATOM    235   C   ASP  28   24.872    11.866    51.990  1.000  17.22
ANISOU  235   C   ASP  28   1414      2264      2863     223   -447 471
ATOM    236   O   ASP  28   24.816    11.081    52.937  1.000  17.62
ANISOU  236   O   ASP  28   1932      2139      2624     150   -565 327
ATOM    237   CB  ASP  28   27.306    12.237    51.657  1.000  22.17
ANISOU  237   CB  ASP  28   1581      3894      2948    -272   -467 559
ATOM    238   CG  ASP  28   28.590    11.906    50.941  1.000  24.72
ANISOU  238   CG  ASP  28   1596      3323      4472     236   -288 648
ATOM    239   OD1 ASP  28   28.572    10.905    50.199  1.000  27.56
ANISOU  239   OD1 ASP  28   2317      3071      5084     808   -284 572
ATOM    240   OD2 ASP  28   29.573    12.617    51.251  1.000  32.08
ANISOU  240   OD2 ASP  28   1584      4343      6261    -144   -470 416
ATOM    241   N   LYS  29   24.098    12.942    51.821  1.000  15.57
ANISOU  241   N   LYS  29   1475      1814      2627      5   -303  178
ATOM    242   CA  LYS  29   23.048    13.305    52.778  1.000  15.13
ANISOU  242   CA  LYS  29   1584      1999      2165     -68   -500 - 96
ATOM    243   C   LYS  29   21.686    13.500    52.118  1.000  14.56
ANISOU  243   C   LYS  29   1496      1352      2686      77  -452  106
ATOM    244   O   LYS  29   20.688    12.985    52.635  1.000  16.21
ANISOU  244   O   LYS  29   1627      1876      2657    -177   -315 - 5
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ATOM    245  CB  LYS  29   23.431  14.563  53.574 1.000 16.09
ANISOU  245  CB  LYS  29   1666    1672    2777    3  -642   -25
ATOM    246  CG  LYS  29   24.776  14.421  54.292 1.000 17.68
ANISOU  246  CG  LYS  29   2192    1918    2606    7 -1144 141
ATOM    247  CD  LYS  29   25.161  15.647  55.096 1.000 20.71
ANISOU  247  CD  LYS  29   2675    2044    3151  -35 -1518  4 1
ATOM    248  CE  LYS  29   26.498  15.331  55.844 1.000 22.24
ANISOU  248  CE  LYS  29   2203    2714    3535  142 -1369 -685
ATOM    249  NZ  LYS  29   26.955  16.594  56.492 1.000 32.67
ANISOU  249  NZ  LYS  29   3199    3381    5831 -502 -2085 -1260
ATOM    250  N   GLY  30   21.604  14.198  50.993 1.000 14.09
ANISOU  250  N   GLY  30   1552    1461    2340  135  -455 -100
ATOM    251  CA  GLY  30   20.358  14.373  50.250 1.000 14.09
ANISOU  251  CA  GLY  30   1428    1561    2365   92  -342  -97
ATOM    252  C   GLY  30   19.372  15.284  50.955 1.000 12.30
ANISOU  252  C   GLY  30   1423    1192    2059  -95  -275 9 4
ATOM    253  O   GLY  30   18.168  15.223  50.696 1.000 14.58
ANISOU  253  O   GLY  30   1435    1689    2415   52  -476 -121
ATOM    254  N   LEU  31   19.884  16.146  51.823 1.000 13.93
ANISOU  254  N   LEU  31   1472    1479    2343 -182  -248 -181
ATOM    255  CA  LEU  31   19.012  17.114  52.511 1.000 14.44
ANISOU  255  CA  LEU  31   1534    1457    2495 -235   -55 -246
ATOM    256  C   LEU  31   19.894  18.286  52.942 1.000 15.08
ANISOU  256  C   LEU  31   1411    1535    2784 -177  -326 -314
ATOM    257  O   LEU  31   21.113  18.136  53.140 1.000 15.64
ANISOU  257  O   LEU  31   1468    1664    2812 -169  -328 -6 7
ATOM    258  CB  LEU  31   18.222  16.560  53.694 1.000 16.76
ANISOU  258  CB  LEU  31   2192    1664    2511 -367   128 -213
ATOM    259  CG  LEU  31   18.883  16.517  55.039 1.000 20.16
ANISOU  259  CG  LEU  31   2435    2485    2739 -289  -141 445
ATOM    260  CD1 LEU  31   17.977  16.145  56.202 1.000 26.49
ANISOU  260  CD1 LEU  31   2253    5076    2738 -508  -341 969
ATOM    261  CD2 LEU  31   20.052  15.526  55.032 1.000 24.73
ANISOU  261  CD2 LEU  31   4192    2967    2237 1001   153  610
ATOM    262  N   PHE  32   19.289  19.462  53.052 1.000 14.11
ANISOU  262  N   PHE  32   1569    1457    2335 -231  -179 -2 0 7
ATOM    263  CA  PHE  32   20.020  20.697  53.417 1.000 13.56
ANISOU  263  CA  PHE  32   1447    1389    2317 -225  -137 1 4
ATOM    264  C   PHE  32   18.976  21.777  53.687 1.000 13.72
ANISOU  264  C   PHE  32   1411    1439    2365 -218  -421 -142
ATOM    265  O   PHE  32   17.889  21.711  53.118 1.000 15.50
ANISOU  265  O   PHE  32   1392    1862    2634 -175  -436 -389
ATOM    266  CB  PHE  32   20.958  21.157  52.308 1.000 15.01
ANISOU  266  CB  PHE  32   1379    2201    2125 -305  -342 231
ATOM    267  CG  PHE  32   20.381  21.156  50.920 1.000 14.60
ANISOU  267  CG  PHE  32   1649    1662    2237 -193  -429 118
ATOM    268  CD1 PHE  32   20.326  19.986  50.148 1.000 14.53
ANISOU  268  CD1 PHE  32   1328    1688    2504 -156  -507 1 5
ATOM    269  CD2 PHE  32   19.831  22.345  50.396 1.000 13.66
ANISOU  269  CD2 PHE  32   1320    1678    2191 -179  -309 166
ATOM    270  CE1 PHE  32   19.742  20.033  48.892 1.000 14.26
ANISOU  270  CE1 PHE  32   1507    1655    2256 -346  -271 199
ATOM    271  CE2 PHE  32   19.267  22.348  49.138 1.000 15.49
ANISOU  271  CE2 PHE  32   1681    1932    2272   72  -504 -126
ATOM    272  CZ  PHE  32   19.177  21.184  48.385 1.000 15.25
ANISOU  272  CZ  PHE  32   1979    1700    2117 -185  -295 168
ATOM    273  N   TYR  33   19.376  22.785  54.442 1.000 14.44
ANISOU  273  N   TYR  33   1813    1302    2372 -237  -496 -5 0
ATOM    274  CA  TYR  33   18.616  24.023  54.519 1.000 14.32
ANISOU  274  CA  TYR  33   1764    1415    2261 -143  -295 -111
ATOM    275  C   TYR  33   19.039  24.929  53.364 1.000 13.70
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ANISOU  275   C   TYR  33   1479    1565   2161    -79   -459  - 5
ATOM    276   O   TYR  33   20.158  24.871  52.859  1.000  15.28
ANISOU  276   O   TYR  33   1370    1524   2912   -190   -420  263
ATOM    277   CB  TYR  33   18.874  24.734  55.853  1.000  14.47
ANISOU  277   CB  TYR  33   1648    1717   2133   -197   -309 -131
ATOM    278   CG  TYR  33   18.231  24.046  57.049  1.000  15.71
ANISOU  278   CG  TYR  33   2131    1537   2302   -339   -109 -136
ATOM    279   CD1 TYR  33   16.938  24.390  57.453  1.000  17.41
ANISOU  279   CD1 TYR  33   2478    1967   2172   -154    246  -249
ATOM    280   CD2 TYR  33   18.912  23.116  57.799  1.000  19.58
ANISOU  280   CD2 TYR  33   2901    2070   2468    144    115  192
ATOM    281   CE1 TYR  33   16.354  23.758  58.542  1.000  20.18
ANISOU  281   CE1 TYR  33   3138    1948   2581    26    740 -102
ATOM    282   CE2 TYR  33   18.368  22.475  58.900  1.000  21.50
ANISOU  282   CE2 TYR  33   3571    2480   2118    340    196  122
ATOM    283   CZ  TYR  33   17.081  22.821  59.263  1.000  22.02
ANISOU  283   CZ  TYR  33   4140    1772   2454    471   1035 -105
ATOM    284   OH  TYR  33   16.541  22.194  60.355  1.000  29.55
ANISOU  284   OH  TYR  33   5088    2809   3329    377   1512 728
ATOM    285   N   LEU  34   18.076  25.709  52.878  1.000  14.28
ANISOU  285   N   LEU  34   1496    1533   2396    -80   -517 - 17
ATOM    286   CA  LEU  34   18.278  26.620  51.756  1.000  15.02
ANISOU  286   CA  LEU  34   1830    1452   2425   -126   -580  2 0
ATOM    287   C   LEU  34   17.871  28.039  52.151  1.000  14.46
ANISOU  287   C   LEU  34   1703    1575   2217   -146   -241  - 7
ATOM    288   O   LEU  34   16.716  28.289  52.492  1.000  16.95
ANISOU  288   O   LEU  34   1663    1852   2923    -75   -186 - 64
ATOM    289   CB  LEU  34   17.389  26.127  50.598  1.000  16.54
ANISOU  289   CB  LEU  34   2355    1485   2444   -212   -749  2 5
ATOM    290   CG  LEU  34   17.633  26.800  49.249  1.000  15.65
ANISOU  290   CG  LEU  34   2010    1567   2371     -7   -633  - 63
ATOM    291   CD1 LEU  34   18.977  26.422  48.664  1.000  20.14
ANISOU  291   CD1 LEU  34   1919    2018   3717   -225   -171 260
ATOM    292   CD2 LEU  34   16.490  26.535  48.291  1.000  17.29
ANISOU  292   CD2 LEU  34   2152    1824   2592   -425   -819 214
ATOM    293   N   THR  35   18.842  28.944  52.065  1.000  15.48
ANISOU  293   N   THR  35   1817    1532   2534   -230   -200  1 3
ATOM    294   CA  THR  35   18.587  30.362  52.324  1.000  17.02
ANISOU  294   CA  THR  35   2149    1537   2781   -206   -827 -196
ATOM    295   C   THR  35   18.491  31.127  51.010  1.000  17.04
ANISOU  295   C   THR  35   1895    1693   2887   -149   -882 - 44
ATOM    296   O   THR  35   18.765  30.572  49.938  1.000  17.01
ANISOU  296   O   THR  35   1880    1692   2893   -262   -458 144
ATOM    297   CB  THR  35   19.772  30.917  53.180  1.000  17.79
ANISOU  297   CB  THR  35   2018    1942   2800    -87   -854 -2 0 0
ATOM    298   OG1 THR  35   20.986  30.673  52.474  1.000  21.10
ANISOU  298   OG1 THR  35   2110    2035   3873   -253   -364 -4 0 2
ATOM    299   CG2 THR  35   19.847  30.331  54.567  1.000  20.44
ANISOU  299   CG2 THR  35   2600    2194   2971    228  -1113  5 9
ATOM    300   N   ASP  36   18.186  32.407  51.059  1.000  18.62
ANISOU  300   N   ASP  36   2287    1747   3040   -187   -316 149
ATOM    301   CA  ASP  36   18.240  33.300  49.884  1.000  20.75
ANISOU  301   CA  ASP  36   2678    1722   3483   -632   -508 374
ATOM    302   C   ASP  36   17.474  32.711  48.703  1.000  20.05
ANISOU  302   C   ASP  36   2104    1929   3586    198   -928 489
ATOM    303   O   ASP  36   17.929  32.685  47.540  1.000  21.06
ANISOU  303   O   ASP  36   2593    1749   3662   -496   -756 131
ATOM    304   CB  ASP  36   19.703  33.561  49.500  1.000  22.21
ANISOU  304   CB  ASP  36   2666    2366   3406   -876   -755 807
ATOM    305   CG  ASP  36   20.588  34.192  50.551  1.000  23.05
ANISOU  305   CG  ASP  36   2537    1818   4402   -175   -833 -2 0 8
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ATOM    306  OD1 ASP  36  20.061  34.886  51.457 1.000 26.16
ANISOU  306  OD1 ASP  36  2981    2100    4860     378   -777 - 3 8 1
ATOM    307  OD2 ASP  36  21.824  33.982  50.528 1.000 24.87
ANISOU  307  OD2 ASP  36  2532    1994    4924     -49   -950 - 6 2 8
ATOM    308  N   CYS  37  16.282  32.196  48.971 1.000 20.25
ANISOU  308  N   CYS  37  2135    1711    3849     118   -638 - 2 6 3
ATOM    309  CA  CYS  37  15.463  31.587  47.902 1.000 20.28
ANISOU  309  CA  CYS  37  2390    1478    3839     136   -799 - 1 3 8
ATOM    310  C   CYS  37  14.078  32.183  47.818 1.000 19.90
ANISOU  310  C   CYS  37  2374    1724    3463     214   -711 - 7 4
ATOM    311  O   CYS  37  13.176  31.629  47.156 1.000 22.75
ANISOU  311  O   CYS  37  2569    1984    4091     -12  -1108   1 5
ATOM    312  CB  CYS  37  15.359  30.061  48.083 1.000 22.21
ANISOU  312  CB  CYS  37  2739    1454    4247     194   -477 - 1 1 5
ATOM    313  SG  CYS  37  14.500  29.595  49.596 1.000 22.84
ANISOU  313  SG  CYS  37  2854    1884    3942    -203   -922 1 4 1
ATOM    314  N   GLY  38  13.855  33.390  48.314 1.000 20.85
ANISOU  314  N   GLY  38  2353    1638    3933     217   -375 - 4 2
ATOM    315  CA  GLY  38  12.570  34.044  48.194 1.000 23.42
ANISOU  315  CA  GLY  38  2233    1874    4790     255   -292 1 6 5
ATOM    316  C   GLY  38  11.534  33.619  49.217 1.000 23.29
ANISOU  316  C   GLY  38  2577    2045    4228     113   -136 - 6.0 1
ATOM    317  O   GLY  38  10.400  34.091  49.129 1.000 25.58
ANISOU  317  O   GLY  38  2529    3424    3765     214    -96  - 2 6 4
ATOM    318  N   LEU  39  11.894  32.836  50.237 1.000 24.55
ANISOU  318  N   LEU  39  2310    2980    4037     119    -46  - 3 6 4
ATOM    319  CA  LEU  39  10.938  32.331  51.195 1.000 24.44
ANISOU  319  CA  LEU  39  2637    2964    3684    -105    175  - 9 4 6
ATOM    320  C   LEU  39  11.107  32.885  52.593 1.000 35.41
ANISOU  320  C   LEU  39  5341    4215    3898    -796    165  - 1 4 3 5
ATOM    321  O   LEU  39  11.784  32.313  53.441 1.000 43.41
ANISOU  321  O   LEU  39  7338    4986    4171   -2639  -1333  - 3 0 3
ATOM    322  CB  LEU  39  10.850  30.810  51.206 1.000 26.48
ANISOU  322  CB  LEU  39  4244    2940    2879      49    -70  - 2 6 1
ATOM    323  CG  LEU  39  10.404  30.097  49.921 1.000 30.21
ANISOU  323  CG  LEU  39  4834    2452    4195     258  -1618  - 4 7 4
ATOM    324  CD1 LEU  39  10.683  28.595  49.972 1.000 24.78
ANISOU  324  CD1 LEU  39  3351    2597    3468     424   -707 - 1 1 8
ATOM    325  CD2 LEU  39   8.940  30.407  49.640 1.000 27.50
ANISOU  325  CD2 LEU  39  4828    2118    3503     860   -860 - 3 2 3
ATOM    326  N   THR  40  10.365  33.957  52.882 1.000 45.58
ANISOU  326  N   THR  40  7392    4849    5077    -520   2852 - 1 9 9 3
ATOM    327  CA  THR  40  10.610  34.661  54.136 1.000 32.50
ANISOU  327  CA  THR  40  4224    3732    4393     999    961  - 5 5 8
ATOM    328  C   THR  40   9.700  34.177  55.248 1.000 29.68
ANISOU  328  C   THR  40  3175    4204    3898    -116    294  - 1 6 3 0
ATOM    329  O   THR  40   8.653  33.556  55.031 1.000 39.75
ANISOU  329  O   THR  40  3930    5847    5326   -1079   -301 - 1 6 5 3
ATOM    330  CB  THR  40  10.641  36.183  53.997 1.000 56.31
ANISOU  330  CB  THR  40 10586    3758    7052   -1417   1006 - 9 9 2
ATOM    331  OG1 THR  40  11.545  36.606  52.946 1.000 68.39
ANISOU  331  OG1 THR  40  7379    3900   14707   -1978   3617 - 2 4 6
ATOM    332  CG2 THR  40  11.214  36.837  55.256 1.000 70.22
ANISOU  332  CG2 THR  40  8265    5228   13188    1389  -4422  - 3 2 4 1
ATOM    333  N   ASP  41  10.191  34.302  56.486 1.000 33.20
ANISOU  333  N   ASP  41  3580    5223    3810    -203    307  - 1 7 7 9
ATOM    334  CA  ASP  41   9.329  33.943  57.613 1.000 27.51
ANISOU  334  CA  ASP  41  2705    3858    3891      91   -253 - 1 0 6 1
ATOM    335  C   ASP  41   8.107  34.861  57.660 1.000 33.43
ANISOU  335  C   ASP  41  3131    3064    6508      32    547 - 1 3 0 7
ATOM    336  O   ASP  41   7.034  34.469  58.101 1.000 30.76
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- 24 -

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ANISOU 336  O   ASP 41  2690    3223    5774     141    -149  -969
ATOM   337  CB  ASP 41  10.113  34.135  58.915  1.000  33.51
ANISOU 337  CB  ASP 41  4853    4026    3852   -1222    -698  -938
ATOM   338  CG  ASP 41  9.453   33.351  60.039  1.000  33.37
ANISOU 338  CG  ASP 41  3324    5291    4065    -739    -501  -571
ATOM   339  OD1 ASP 41  9.152   32.164  59.780  1.000  34.95
ANISOU 339  OD1 ASP 41  4040    4681    4557    -380     824   -92
ATOM   340  OD2 ASP 41  9.395   33.904  61.161  1.000  86.76
ANISOU 340  OD2 ASP 41  18972   10427   3567  -10425     588 -1858
ATOM   341  N   THR 42  8.272   36.089  57.205  1.000  32.71
ANISOU 341  N   THR 42  3217    3695    5516       9     -58  -586
ATOM   342  CA  THR 42  7.198   37.074  57.221  1.000  38.48
ANISOU 342  CA  THR 42  4747    4161    5711    1067    -861  -630
ATOM   343  C   THR 42  6.005   36.640  56.375  1.000  35.83
ANISOU 343  C   THR 42  3333    4044    6237    1136     157 -1162
ATOM   344  O   THR 42  4.877   36.606  56.900  1.000  38.90
ANISOU 344  O   THR 42  4048    3603    7128    -186    1059  1224
ATOM   345  CB  THR 42  7.751   38.449  56.815  1.000  37.05
ANISOU 345  CB  THR 42  4526    3763    5788    1021    -677 -1532
ATOM   346  OG1 THR 42  8.831   38.301  55.889  1.000  98.08
ANISOU 346  OG1 THR 42  16381   13757   7127   -3208    7500 -2318
ATOM   347  CG2 THR 42  8.358   39.113  58.047  1.000  36.08
ANISOU 347  CG2 THR 42  6097    3613    3997     886   -1119   269
ATOM   348  N   GLU 43  6.259   36.184  55.173  1.000  34.64
ANISOU 348  N   GLU 43  4208    3312    5642     656    -275  -698
ATOM   349  CA  GLU 43  5.391   35.557  54.192  1.000  32.98
ANISOU 349  CA  GLU 43  3527    2886    6120    1199    -883  -152
ATOM   350  C   GLU 43  4.701   34.300  54.713  1.000  41.67
ANISOU 350  C   GLU 43  3454    4151    8229     225   -1743   953
ATOM   351  O   GLU 43  3.484   34.124  54.605  1.000  38.53
ANISOU 351  O   GLU 43  3375    4041    7222     589   -1417  -578
ATOM   352  CB  GLU 43  6.278   35.074  53.026  1.000  44.72
ANISOU 352  CB  GLU 43  5991    4098    6901      28     137 -2137
ATOM   353  CG  GLU 43  6.658   36.125  52.003  1.000  53.42
ANISOU 353  CG  GLU 43  5931    6417    7949    -993    1540 -1338
ATOM   354  CD  GLU 43  7.838   36.976  52.429  1.000  50.41
ANISOU 354  CD  GLU 43  4087    7601    7467    -439    2486 -1725
ATOM   355  OE1 GLU 43  8.024   37.112  53.661  1.000  59.44
ANISOU 355  OE1 GLU 43  7237    7592    7757   -1284    1632 -2146
ATOM   356  OE2 GLU 43  8.555   37.476  51.531  1.000  71.33
ANISOU 356  OE2 GLU 43  11550   6344    9207   -4131    6267 -4645
ATOM   357  N   LEU 44  5.511   33.373  55.224  1.000  27.80
ANISOU 357  N   LEU 44  2837    2924    4802     -55    -626  -227
ATOM   358  CA  LEU 44  4.926   32.222  55.902  1.000  27.88
ANISOU 358  CA  LEU 44  2207    3379    5009     241     813  -382
ATOM   359  C   LEU 44  3.886   32.670  56.934  1.000  34.30
ANISOU 359  C   LEU 44  1930    4771    6333    -537     776 -2629
ATOM   360  O   LEU 44  2.781   32.159  56.924  1.000  33.35
ANISOU 360  O   LEU 44  2046    5235    5390    -840     705 -2397
ATOM   361  CB  LEU 44  5.999   31.394  56.587  1.000  24.59
ANISOU 361  CB  LEU 44  2781    3494    3070      81     940   -74
ATOM   362  CG  LEU 44  5.592   30.147  57.343  1.000  31.76
ANISOU 362  CG  LEU 44  2414    5135    4517    -845     792  1217
ATOM   363  CD1 LEU 44  4.563   29.328  56.575  1.000  47.71
ANISOU 363  CD1 LEU 44  5860    7081    5188   -3576    3333 -2541
ATOM   364  CD2 LEU 44  6.793   29.259  57.653  1.000  51.56
ANISOU 364  CD2 LEU 44  6294    3688    9608    1956    2240  1382
ATOM   365  N   LYS 45  4.212   33.712  57.694  1.000  41.91
ANISOU 365  N   LYS 45  2865    6802    6256   -1455     381 -3537
ATOM   366  CA  LYS 45  3.369   34.195  58.773  1.000  44.31
ANISOU 366  CA  LYS 45  4768    5427    6639      74     837 -2985
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ATOM    367  C    LYS  45    1.981   34.582  58.278 1.000 33.58
ANISOU  367  C    LYS  45    4535    3445    6681   -245   1221  -2820
ATOM    368  O    LYS  45    0.984   34.238  58.902 1.000 39.93
ANISOU  368  O    LYS  45    4857    3594    6720    262   1634  -2337
ATOM    369  CB   LYS  45    4.038   35.400  59.447 1.000 50.20
ANISOU  369  CB   LYS  45    4944    5561    8569   1081   -447  -3980
ATOM    370  CG   LYS  45    3.082   36.546  59.706 1.000 53.07
ANISOU  370  CG   LYS  45    3548    6321   10296   1148  -2094  -4809
ATOM    371  CD   LYS  45    3.714   37.922  59.622 1.000 58.29
ANISOU  371  CD   LYS  45    4723    5694   11730   1422  -3745  -5024
ATOM    372  CE   LYS  45    3.199   38.793  60.761 1.000 65.33
ANISOU  372  CE   LYS  45    6294    6898   11629   1072  -3430  -5603
ATOM    373  NZ   LYS  45    1.713   38.779  60.852 1.000 73.75
ANISOU  373  NZ   LYS  45    6392    9216   12412   -718  -1071  -7436
ATOM    374  N    SER  46    1.973   35.341  57.193 1.000 36.94
ANISOU  374  N    SER  46    4074    3478    6484   -956   1068  -2939
ATOM    375  CA   SER  46    0.743   35.856  56.607 1.000 37.61
ANISOU  375  CA   SER  46    3983    3417    6892  -1335    988  -2335
ATOM    376  C    SER  46   -0.137   34.702  56.137 1.000 34.45
ANISOU  376  C    SER  46    3430    3057    6602  -1104   1656  -2394
ATOM    377  O    SER  46   -1.337   34.625  56.449 1.000 29.50
ANISOU  377  O    SER  46    3195    2789    5224   -587   1093  -1206
ATOM    378  CB   SER  46    1.160   36.726  55.419 1.000 40.36
ANISOU  378  CB   SER  46    4102    3809    7425  -2099    617  -1930
ATOM    379  OG   SER  46    0.018   37.017  54.630 1.000 43.38
ANISOU  379  OG   SER  46    5005    3431    8048  -1261     53  -1863
ATOM    380  N    ALA  47    0.493   33.808  55.361 1.000 29.82
ANISOU  380  N    ALA  47    3246    2173    5910    -18    809  -1228
ATOM    381  CA   ALA  47   -0.208   32.623  54.879 1.000 25.84
ANISOU  381  CA   ALA  47    3566    2106    4148      7    630   -891
ATOM    382  C    ALA  47   -0.722   31.792  56.058 1.000 25.02
ANISOU  382  C    ALA  47    2591    2344    4572    481    280   -280
ATOM    383  O    ALA  47   -1.888   31.381  56.063 1.000 23.19
ANISOU  383  O    ALA  47    2850    2366    3597    129    318  -1119
ATOM    384  CB   ALA  47    0.615   31.791  53.912 1.000 26.76
ANISOU  384  CB   ALA  47    2892    2764    4511    270    351  -1134
ATOM    385  N    LYS  48    0.132   31.529  57.041 1.000 24.64
ANISOU  385  N    LYS  48    3107    2076    4178    130    -57  -1085
ATOM    386  CA   LYS  48   -0.186   30.712  58.202 1.000 25.83
ANISOU  386  CA   LYS  48    3545    2979    3291    -16     30  -1416
ATOM    387  C    LYS  48   -1.337   31.339  59.003 1.000 28.58
ANISOU  387  C    LYS  48    3373    3344    4144   -354    129  -2041
ATOM    388  O    LYS  48   -2.310   30.694  59.396 1.000 27.04
ANISOU  388  O    LYS  48    3849    2793    3633    312    419   -634
ATOM    389  CB   LYS  48    1.035   30.654  59.149 1.000 28.95
ANISOU  389  CB   LYS  48    3507    3294    4200   -274   -257   -738
ATOM    390  CG   LYS  48    0.775   29.694  60.313 1.000 32.96
ANISOU  390  CG   LYS  48    4412    3214    4897    113   -543   -156
ATOM    391  CD   LYS  48    1.418   30.222  61.570 1.000 39.92
ANISOU  391  CD   LYS  48    5828    4616    4724    705  -1278    -39
ATOM    392  CE   LYS  48    1.217   29.320  62.769 1.000 33.67
ANISOU  392  CE   LYS  48    3973    4020    4799   1402   -205   -356
ATOM    393  NZ   LYS  48    0.731   30.100  63.946 1.000 38.33
ANISOU  393  NZ   LYS  48    4516    5230    4816    916  -1039  -1555
ATOM    394  N    ASP  49   -1.253   32.656  59.255 1.000 23.78
ANISOU  394  N    ASP  49    2796    3136    3104     79   -459  -1588
ATOM    395  CA   ASP  49   -2.298   33.326  60.006 1.000 24.05
ANISOU  395  CA   ASP  49    2826    2913    3398   -291    366  -1043
ATOM    396  C    ASP  49   -3.679   33.181  59.366 1.000 24.45
ANISOU  396  C    ASP  49    2721    3270    3300   -220    555  -1454
ATOM    397  O    ASP  49   -4.637   32.951  60.082 1.000 27.10
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ANISOU  397  O    ASP  49  2863     3177     4257   -368   1004  -1544
ATOM    393  CB   ASP  49  -2.034   34.824   60.167 1.000 30.34
ANISOU  398  CB   ASP  49  3695     3210     4623   -559   713   -2178
ATOM    399  CG   ASP  49  -0.924   35.181   61.128 1.000 37.18
ANISOU  399  CG   ASP  49  5259     4057     4810  -1109   -211  -2007
ATOM    400  OD1  ASP  49  -0.556   34.266   61.904 1.000 33.36
ANISOU  400  OD1  ASP  49  3717     4549     4408   -737   888   -1727
ATOM    401  OD2  ASP  49  -0.525   36.375   61.087 1.000 48.45
ANISOU  401  OD2  ASP  49  7960     3575     6875   -927  -2887  -2409
ATOM    402  N    LEU  50  -3.788   33.402   58.059 1.000 24.46
ANISOU  402  N    LEU  50  3114     2668     3513    374   200   -1298
ATOM    403  CA   LEU  50  -5.123   33.344   57.471 1.000 22.92
ANISOU  403  CA   LEU  50  2949     2145     3614    161   397   -562
ATOM    404  C    LEU  50  -5.679   31.937   57.328 1.000 21.79
ANISOU  404  C    LEU  50  3345     2197     2737     33   417   -556
ATOM    405  O    LEU  50  -6.878   31.741   57.475 1.000 24.96
ANISOU  405  O    LEU  50  ?463     2502     3517   -276   766   -1181
ATOM    406  CB   LEU  50  -5.254   34.137   56.194 1.000 22.13
ANISOU  406  CB   LEU  50  3127     2016     3266   -103   524   -757
ATOM    407  CG   LEU  50  -6.661   34.578   55.807 1.000 28.87
ANISOU  407  CG   LEU  50  3549     3538     3881    961   825    208
ATOM    408  CD1  LEU  50  -7.389   35.082   57.049 1.000 52.72
ANISOU  408  CD1  LEU  50  4567     8556     6907    940   2929  -1936
ATOM    409  CD2  LEU  50  -6.644   35.642   54.723 1.000 41.07
ANISOU  409  CD2  LEU  50  6971     3395     5240  -1005  -2258   857
ATOM    410  N    VAL  51  -4.801   30.956   57.138 1.000 21.78
ANISOU  410  N    VAL  51  3345     2052     2877   -160   216   -860
ATOM    411  CA   VAL  51  -5.293   29.580   57.118 1.000 19.40
ANISOU  411  CA   VAL  51  2631     2056     2683    -12   173   -303
ATOM    412  C    VAL  51  -5.631   29.135   58.533 1.000 25.25
ANISOU  412  C    VAL  51  4453     2656     2485   -753   587   -955
ATOM    413  O    VAL  51  -6.652   28.454   58.725 1.000 25.07
ANISOU  413  O    VAL  51  4555     2176     2795   -484   1185  -827
ATOM    414  CB   VAL  51  -4.377   28.589   56.396 1.000 18.78
ANISOU  414  CB   VAL  51  2729     1786     2620    -72   171   -313
ATOM    415  CG1  VAL  51  -3.152   28.238   57.231 1.000 20.42
ANISOU  415  CG1  VAL  51  3002     1841     2918    295   -13   -480
ATOM    416  CG2  VAL  51  -5.147   27.306   56.021 1.000 24.10
ANISOU  416  CG2  VAL  51  3112     2337     3708   -511   355   -846
ATOM    417  N    ILE  52  -4.836   29.500   59.534 1.000 25.23
ANISOU  417  N    ILE  52  4514     2471     2603    388    76   -874
ATOM    418  CA   ILE  52  -5.205   29.114   60.921 1.000 24.38
ANISOU  418  CA   ILE  52  3488     3010     2765    248    19   -509
ATOM    419  C    ILE  52  -6.498   29.771   61.355 1.000 24.20
ANISOU  419  C    ILE  52  3026     2482     3687   -354   114   -648
ATOM    420  O    ILE  52  -7.328   29.182   62.071 1.000 27.73
ANISOU  420  O    ILE  52  3735     2812     3989   -198   614   -334
ATOM    421  CB   ILE  52  -4.016   29.427   61.829 1.000 27.59
ANISOU  421  CB   ILE  52  3321     4347     2815    590    0    -785
ATOM    422  CG1  ILE  52  -2.853   28.439   61.510 1.000 31.45
ANISOU  422  CG1  ILE  52  3278     5248     3425    741   363   -1288
ATOM    423  CG2  ILE  52  -4.293   29.312   63.317 1.000 33.62
ANISOU  423  CG2  ILE  52  3827     6199     2750    881   150   -1454
ATOM    424  CD1  ILE  52  -1.930   28.351   62.710 1.000 36.22
ANISOU  424  CD1  ILE  52  3956     5082     4722    979   -601  -234
ATOM    425  N    ASP  53  -6.771   30.992   60.913 1.000 24.56
ANISOU  425  N    ASP  53  3479     2878     2974    165   609   -426
ATOM    426  CA   ASP  53  -8.051   31.646   61.278 1.000 23.50
ANISOU  426  CA   ASP  53  3242     2942     2745     -5   355   -677
ATOM    427  C    ASP  53  -9.201   30.929   60.594 1.000 26.34
ANISOU  427  C    ASP  53  3462     2986     3561   -435   612   -1064
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ATOM    428  O    ASP  53   -10.342 30.836  61.051 1.000 29.73
ANISOU  428  O    ASP  53   3468    3085    4743   -436  937  -1142
ATOM    429  CB   ASP  53   -7.964  33.084  60.772 1.000 33.83
ANISOU  429  CB   ASP  53   3800    2322    6730   -92   1806 -933
ATOM    430  CG   ASP  53   -9.308  33.758  60.583 1.000 32.05
ANISOU  430  CG   ASP  53   4652    2412    5113   172   -302 -1138
ATOM    431  OD1  ASP  53   -9.653  34.524  61.486 1.000 43.68
ANISOU  431  OD1  ASP  53   3661    4686    8248   150   1379 -3120
ATOM    432  OD2  ASP  53   -9.950  33.556  59.532 1.000 51.30
ANISOU  432  OD2  ASP  53   8386    6074    5033   -2062 -1738 922
ATOM    433  N    PHE  54   -8.933  30.376  59.413 1.000 25.39
ANISOU  433  N    PHE  54   3372    2640    3637   72 71  -1176
ATOM    434  CA   PHE  54   -9.917  29.557  58.704 1.000 24.10
ANISOU  434  CA   PHE  54   3015    3264    2876   -366  263  -539
ATOM    435  C    PHE  54   -10.180 28.259  59.456 1.000 24.00
ANISOU  435  C    PHE  54   3264    3174    2680   -365  459  -688
ATOM    436  O    PHE  54   -11.333 27.893  59.686 1.000 28.19
ANISOU  436  O    PHE  54   3551    3246    3914   -549  1305 -1130
ATOM    437  CB   PHE  54   -9.465  29.273  57.263 1.000 23.62
ANISOU  437  CB   PHE  54   3241    2955    2779   -249  218  -434
ATOM    438  CG   PHE  54   -10.522 28.499  56.461 1.000 27.62
ANISOU  438  CG   PHE  54   4712    2945    2838   -694  -636 1 4
ATOM    439  CD1  PHE  54   -11.729 29.078  56.087 1.000 31.38
ANISOU  439  CD1  PHE  54   3613    4658    3654   -951  -262 -621
ATOM    440  CD2  PHE  54   -10.283 27.210  56.033 1.000 30.92
ANISOU  440  CD2  PHE  54   5782    3589    2377   -831  293  -844
ATOM    441  CE1  PHE  54   -12.653 28.406  55.307 1.000 44.29
ANISOU  441  CE1  PHE  54   5504    5404    5919   -3066 -2057 1178
ATOM    442  CE2  PHE  54   -11.228 26.503  55.306 1.000 38.69
ANISOU  442  CE2  PHE  54   7997    4412    2289   -2803 155  -387
ATOM    443  CZ   PHE  54   -12.424 27.092  54.927 1.000 42.33
ANISOU  443  CZ   PHE  54   5992    6305    3787   -4256 54 -446
ATOM    444  N    PHE  55   -9.126  27.558  59.870 1.000 25.87
ANISOU  444  N    PHE  55   3787    2768    3276   -85   431  -839
ATOM    445  CA   PHE  55   -9.195  26.310  60.625 1.000 25.69
ANISOU  445  CA   PHE  55   3567    3042    3151   68 763 -711
ATOM    446  C    PHE  55   -9.929  26.484  61.944 1.000 27.69
ANISOU  446  C    PHE  55   3357    3961    3205   181   703  -719
ATOM    447  O    PHE  55   -10.745 25.670  62.373 1.000 30.08
ANISOU  447  O    PHE  55   4046    4165    3217   142   878  -127
ATOM    448  CB   PHE  55   -7.759  25.873  60.932 1.000 25.48
ANISOU  448  CB   PHE  55   3556    3159    2964   117   835  -638
ATOM    449  CG   PHE  55   -7.019  25.242  59.762 1.000 26.31
ANISOU  449  CG   PHE  55   3437    3039    3522   -468  1068 -1156
ATOM    450  CD1  PHE  55   -7.611  24.820  58.590 1.000 27.09
ANISOU  450  CD1  PHE  55   3553    3895    2845   -1018 1404 -658
ATOM    451  CD2  PHE  55   -5.651  25.031  59.935 1.000 31.68
ANISOU  451  CD2  PHE  55   3244    4185    4609   -726  1123 -2221
ATOM    452  CE1  PHE  55   -6.878  24.150  57.621 1.000 23.89
ANISOU  452  CE1  PHE  55   3472    2525    3079   -58   551  -547
ATOM    453  CE2  PHE  55   -4.904  24.433  58.950 1.000 31.74
ANISOU  453  CE2  PHE  55   3487    4387    4186   226   337  -2304
ATOM    454  CZ   PHE  55   -5.514  24.004  57.770 1.000 24.23
ANISOU  454  CZ   PHE  55   3706    2187    3312   414   -22  -416
ATOM    455  N    GLU  56   -9.633  27.581  62.629 1.000 30.39
ANISOU  455  N    GLU  56   3961    5033    2553   -308  520  -1110
ATOM    456  CA   GLU  56   -10.222 27.875  63.925 1.000 30.18
ANISOU  456  CA   GLU  56   4160    4504    2805   -734  1221 -637
ATOM    457  C    GLU  56   -11.650 28.401  63.820 1.000 33.50
ANISOU  457  C    GLU  56   4324    4124    4280   -535  1489 -892
ATOM    458  O    GLU  56   -12.470 28.149  64.708 1.000 44.44
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ANISOU  458   O   GLU  56   3864     8872    4150     93  1013   1011
ATOM    459   CB  GLU  56  -9.403  28.978  64.615  1.000  35.85
ANISOU  459   CB  GLU  56   5037     5109    3475   -221   574  -1821
ATOM    460   CG  GLU  56  -8.192  28.508  65.401  1.000  38.63
ANISOU  460   CG  GLU  56   4804     7152    2721   -337   763  -1692
ATOM    461   CD  GLU  56  -7.395  29.699  65.916  1.000  45.55
ANISOU  461   CD  GLU  56   5576     7183    4546    -24  -295  -2330
ATOM    462   OE1 GLU  56  -7.935  30.828  65.888  1.000  55.54
ANISOU  462   OE1 GLU  56   7344     7247    6512    586  2570  -3059
ATOM    463   OE2 GLU  56  -6.246  29.492  66.350  1.000  50.41
ANISOU  463   OE2 GLU  56   4050    10497    4606  -1066  1163  -2063
ATOM    464   N   HIS  57 -11.890  29.289  62.866  1.000  32.20
ANISOU  464   N   HIS  57   3273     4700    4261   -549  1540   -670
ATOM    465   CA  HIS  57 -13.101  30.078  62.909  1.000  33.38
ANISOU  465   CA  HIS  57   3795     4885    4002   -110  1553  -1239
ATOM    466   C   HIS  57 -13.981  29.873  61.697  1.000  32.85
ANISOU  466   C   HIS  57   3380     4736    4367    278  1506  -1797
ATOM    467   O   HIS  57 -15.012  30.533  61.571  1.000  37.09
ANISOU  467   O   HIS  57   3362     4733    5998    276  1087  -2205
ATOM    468   CB  HIS  57 -12.802  31.573  62.976  1.000  37.39
ANISOU  468   CB  HIS  57   4327     4959    4922   -193  1402  -1970
ATOM    469   CG  HIS  57 -11.981  31.949  64.162  1.000  36.99
ANISOU  469   CG  HIS  57   4111     5046    4896    680  1344  -2319
ATOM    470   ND1 HIS  57 -12.465  31.917  65.453  1.000  38.84
ANISOU  470   ND1 HIS  57   5090     4844    4823   -171  1362  -1598
ATOM    471   CD2 HIS  57 -10.707  32.387  64.232  1.000  37.91
ANISOU  471   CD2 HIS  57   5259     4197    4947   -891  1544  -2828
ATOM    472   CE1 HIS  57 -11.510  32.305  66.275  1.000  40.37
ANISOU  472   CE1 HIS  57   5481     5191    4668   -243  1087  -1361
ATOM    473   NE2 HIS  57 -10.441  32.592  65.552  1.000  35.63
ANISOU  473   NE2 HIS  57   4420     4376    4743    980   799  -1492
ATOM    474   N   GLY  58 -13.464  29.068  60.786  1.000  32.06
ANISOU  474   N   GLY  58   4402     3186    4594      5  1572  -1525
ATOM    475   CA  GLY  58 -14.290  28.731  59.627  1.000  35.74
ANISOU  475   CA  GLY  58   4508     4402    4669  -1129  1877  -1893
ATOM    476   C   GLY  58 -15.449  27.859  60.099  1.000  31.52
ANISOU  476   C   GLY  58   3317     3688    4969    308  1657   -593
ATOM    477   O   GLY  58 -15.245  26.952  60.922  1.000  32.66
ANISOU  477   O   GLY  58   4561     4176    3674   -204   624  -1012
ATOM    478   N   SER  59 -16.632  28.152  59.574  1.000  31.03
ANISOU  478   N   SER  59   3786     3623    4379    519  1142  -1442
ATOM    479   CA  SER  59 -17.823  27.359  59.859  1.000  32.03
ANISOU  479   CA  SER  59   3305     3925    4939    757   850  -1188
ATOM    480   C   SER  59 -17.763  26.034  59.117  1.000  37.27
ANISOU  480   C   SER  59   3654     4001    6507      0  2065  -1682
ATOM    481   O   SER  59 -16.987  25.858  58.181  1.000  31.23
ANISOU  481   O   SER  59   3027     3655    5184    613  1003  -1174
ATOM    482   CB  SER  59 -19.077  28.136  59.444  1.000  39.80
ANISOU  482   CB  SER  59   3930     5925    5266   1707  -545  -2846
ATOM    483   OG  SER  59 -19.252  28.159  58.029  1.000  35.38
ANISOU  483   OG  SER  59   3505     4800    5137    355   119  -1624
ATOM    484   N   GLU  60 -18.589  25.065  59.507  1.000  46.32
ANISOU  484   N   GLU  60   5438     6083    6078  -2395  2115  -2700
ATOM    485   CA  GLU  60 -18.573  23.801  58.754  1.000  34.21
ANISOU  485   CA  GLU  60   3381     4798    4818   -960   716  -1238
ATOM    486   C   GLU  60 -19.033  24.055  57.330  1.000  34.22
ANISOU  486   C   GLU  60   4659     3711    4632    455  1378   -847
ATOM    487   O   GLU  60 -18.616  23.437  56.361  1.000  29.91
ANISOU  487   O   GLU  60   3708     3040    4615   -679  2037   -604
ATOM    488   CB  GLU  60 -19.390  22.742  59.488  1.000  38.26
ANISOU  488   CB  GLU  60   5012     5567    3958  -1599   748  -1000
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ATOM    489  CG  GLU  60  -18.625 22.182  60.678 1.000 42.01
ANISOU  489  CG  GLU  60  5470     5439    5055    503    950   -782
ATOM    490  CD  GLU  60  -17.307 21.528  60.312 1.000 45.34
ANISOU  490  CD  GLU  60  4036     7496    5695   -885   1094  -2276
ATOM    491  OE1 GLU  60  -17.219 20.867  59.264 1.000 49.69
ANISOU  491  OE1 GLU  60  5383     6689    6809   -864   1730  -2838
ATOM    492  OE2 GLU  60  -16.323 21.659  61.084 1.000 43.62
ANISOU  492  OE2 GLU  60  4677     4974    6924  -1984   109    -12
ATOM    493  N   ALA  61  -19.928 25.028  57.167 1.000 34.26
ANISOU  493  N   ALA  61  3091     3912    6014    -81   1209  -1122
ATOM    494  CA  ALA  61  -20.408 25.324  55.823 1.000 33.07
ANISOU  494  CA  ALA  61  1647     4409    6508   -228   657   -1105
ATOM    495  C   ALA  61  -19.314 25.876  54.938 1.000 30.69
ANISOU  495  C   ALA  61  2053     3742    5866    -59   640   -1066
ATOM    496  O   ALA  61  -19.138 25.482  53.790 1.000 31.15
ANISOU  496  O   ALA  61  2754     2893    6189    31    793   -1285
ATOM    497  CB  ALA  61  -21.543 26.336  55.932 1.000 34.43
ANISOU  497  CB  ALA  61  2783     4403    5897    288   1210  -1650
ATOM    498  N   GLU  62  -18.568 26.824  55.498 1.000 28.80
ANISOU  498  N   GLU  62  2168     3404    5371     -9   915   -964
ATOM    499  CA  GLU  62  -17.478 27.395  54.704 1.000 26.78
ANISOU  499  CA  GLU  62  2339     2374    5461    423   871   -413
ATOM    500  C   GLU  62  -16.432 26.330  54.389 1.000 22.61
ANISOU  500  C   GLU  62  2569     1621    4402     84   1049   -376
ATOM    501  O   GLU  62  -15.851 26.316  53.289 1.000 24.41
ANISOU  501  O   GLU  62  2399     2669    4209   -132   801   -548
ATOM    502  CB  GLU  62  -16.861 28.591  55.429 1.000 32.86
ANISOU  502  CB  GLU  62  3129     2117    7239    251   2039  -1358
ATOM    503  CG  GLU  62  -17.739 29.834  55.554 1.000 34.69
ANISOU  503  CG  GLU  62  2824     2859    7499    916    -95  -1430
ATOM    504  CD  GLU  62  -17.274 30.810  56.616 1.000 38.93
ANISOU  504  CD  GLU  62  4998     2780    7014   1622   224  -1820
ATOM    505  OE1 GLU  62  -16.861 30.391  57.717 1.000 40.92
ANISOU  505  OE1 GLU  62  4844     3636    7068   1268    34  -1673
ATOM    506  OE2 GLU  62  -17.324 32.041  56.385 1.000 45.13
ANISOU  506  OE2 GLU  62  7600     2889    6658   -525   1698  -1099
ATOM    507  N   LYS  63  -16.193 25.431  55.345 1.000 25.20
ANISOU  507  N   LYS  63  2470     2380    4723    312   1050    8
ATOM    508  CA  LYS  63  -15.214 24.369  55.207 1.000 21.62
ANISOU  508  CA  LYS  63  2608     2894    2712    688   349   -446
ATOM    509  C   LYS  63  -15.708 23.397  54.147 1.000 22.42
ANISOU  509  C   LYS  63  2930     3038    2549     84   433   -217
ATOM    510  O   LYS  63  -14.913 23.038  53.289 1.000 24.17
ANISOU  510  O   LYS  63  3340     2354    3491    239   782   -790
ATOM    511  CB  LYS  63  -14.940 23.650  56.534 1.000 24.50
ANISOU  511  CB  LYS  63  3411     3057    2842     42   -105   -299
ATOM    512  CG  LYS  63  -13.963 24.465  57.381 1.000 27.58
ANISOU  512  CG  LYS  63  4640     2792    3045   -302   -465   -306
ATOM    513  CD  LYS  63  -13.866 23.937  58.811 1.000 26.09
ANISOU  513  CD  LYS  63  3132     3570    3211    305   -575   -12
ATOM    514  CE  LYS  63  -12.761 24.695  59.560 1.000 28.96
ANISOU  514  CE  LYS  63  4342     3579    3083   -317   -286   -792
ATOM    515  NZ  LYS  63  -12.927 24.614  61.030 1.000 35.00
ANISOU  515  NZ  LYS  63  4884     5356    3057     64   -298   -817
ATOM    516  N   ARG  64  -17.007 23.112  54.143 1.000 29.82
ANISOU  516  N   ARG  64  3238     2676    5418   -533   1111  -1259
ATOM    517  CA  ARG  64  -17.521 22.169  53.118 1.000 25.56
ANISOU  517  CA  ARG  64  2396     2474    4841   -170   1252   -962
ATOM    518  C   ARG  64  -17.417 22.735  51.708 1.000 28.45
ANISOU  518  C   ARG  64  3022     2681    5106    153   1369   -562
ATOM    519  O   ARG  64  -17.149 21.981  50.759 1.000 22.57
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ANISOU 519   O   ARG  64   1672      2466
ATOM   520   CB  ARG  64  -18.937 21.809   4436    -71   148  -395
ANISOU 520   CB  ARG  64   2669      4144   53.537 1.000 32.48
ATOM   521   CG  ARG  64  -19.094 20.442   5526   -809  1483 -1029
ANISOU 521   CG  ARG  64   4444      4749   54.189 1.000 45.55
ATOM   522   CD  ARG  64  -20.557 19.985   8116  -2443  1343  -153
ANISOU 522   CD  ARG  64   5723      6760   54.080 1.000 59.48
ATOM   523   NE  ARG  64  -20.759 19.485  10116  -3977 -2863  2461
ANISOU 523   NE  ARG  64  10254      9303   52.714 1.000 77.63
ATOM   524   CZ  ARG  64  -21.166 20.236   9938  -4031 -4193  2666
ANISOU 524   CZ  ARG  64   5289      6952   51.696 1.000 60.23
ATOM   525   NH1 ARG  64  -21.424 21.528  10644  -1128 -4334   501
ANISOU 525   NH1 ARG  64  18286      5072   51.892 1.000 91.64
ATOM   526   NH2 ARG  64  -21.286 19.711  11461  -5082 -3134   -75
ANISOU 526   NH2 ARG  64   3318      4095   50.489 1.000 43.67
ATOM   527   N   ALA  65  -17.624 24.041   9178   -183 -1521  2085
ANISOU 527   N   ALA  65   1907      2770   51.515 1.000 26.71
ATOM   528   CA  ALA  65  -17.522 24.661   5472    189   930  -556
ANISOU 528   CA  ALA  65   1798      2379   50.199 1.000 24.91
ATOM   529   C   ALA  65  -16.109 24.575   5288    280   417  -754
ANISOU 529   C   ALA  65   1808      2408   49.595 1.000 21.81
ATOM   530   O   ALA  65  -15.935 24.724   4071    597   155  -626
ANISOU 530   O   ALA  65   2127      3076   48.381 1.000 24.13
ATOM   531   CB  ALA  65  -18.023 26.096   3964    224  -220  -485
ANISOU 531   CB  ALA  65   3096      2984   50.221 1.000 31.78
ATOM   532   N   VAL  66  -15.098 24.306   5993   1337  1401  -453
ANISOU 532   N   VAL  66   1836      1880   50.426 1.000 19.29
ATOM   533   CA  VAL  66  -13.723 24.167   3614    466   360  -541
ANISOU 533   CA  VAL  66   1636      1653   49.953 1.000 18.17
ATOM   534   C   VAL  66  -13.166 22.767   3616    204    79  -487
ANISOU 534   C   VAL  66   1516      1638   50.248 1.000 15.18
ATOM   535   O   VAL  66  -11.959 22.623   2613    120   126  -571
ANISOU 535   O   VAL  66   1567      2071   50.353 1.000 17.63
ATOM   536   CB  VAL  66  -12.784 25.277   3060    217  -106  -317
ANISOU 536   CB  VAL  66   2175      1576   50.437 1.000 18.91
ATOM   537   CG1 VAL  66  -13.139 26.627   3433    183  -135  -598
ANISOU 537   CG1 VAL  66   2067      1751   49.805 1.000 20.60
ATOM   538   CG2 VAL  66  -12.736 25.373   4010    219   593   -83
ANISOU 538   CG2 VAL  66   2689      2066   51.945 1.000 21.61
ATOM   539   N   THR  67  -14.048 21.792   3455    102    22  -603
ANISOU 539   N   THR  67   1761      1614   50.343 1.000 18.30
ATOM   540   CA  THR  67  -13.673 20.403   3577    -20    -6  -514
ANISOU 540   CA  THR  67   1927      1656   50.563 1.000 17.18
ATOM   541   C   THR  67  -13.979 19.566   2946    -32    50  -556
ANISOU 541   C   THR  67   1763      1742   49.332 1.000 16.52
ATOM   542   O   THR  67  -15.107 19.613   2773     21 27  -467
ANISOU 542   O   THR  67   1750      2211   48.811 1.000 18.13
ATOM   543   CB  THR  67  -14.373 19.791   2929     73 -86  -383
ANISOU 543   CB  THR  67   2202      2014   51.782 1.000 18.54
ATOM   544   OG1 THR  67  -14.060 20.554   2827    192   224  -492
ANISOU 544   OG1 THR  67   2481      2251   52.961 1.000 20.14
ATOM   545   CG2 THR  67  -13.912 18.364   2920   -108   155  -468
ANISOU 545   CG2 THR  67   2393      2016   52.017 1.000 20.04
ATOM   546   N   SER  68  -13.030 18.818   3203     29 -86  -235
ANISOU 546   N   SER  68   1612      1720   48.821 1.000 16.71
ATOM   547   CA  SER  68  -13.281 17.947   3018   -135   154  -498
ANISOU 547   CA  SER  68   1508      1631   47.688 1.000 16.33
ATOM   548   C   SER  68  -14.223 16.795   3065   -184   365  -561
ANISOU 548   C   SER  68   1194      1775   48.057 1.000 14.85
ATOM   549   O   SER  68  -14.303 16.431   2672    -81   197  -448
ANISOU 549   O   SER  68   1783      1775   49.233 1.000 16.36
                                          2659   -145   192  -481
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ATOM    550  CB  SER  68  -11.958 17.303  47.257 1.000 17.84
ANISOU  550  CB  SER  68   1459     2139    3182   -87    647  -313
ATOM    551  OG  SER  68  -10.998 18.259  46.904 1.000 17.21
ANISOU  551  OG  SER  68   1659     1987    2893   -75    364   -49
ATOM    552  N   PRO  69  -14.929 16.284  47.054 1.000 15.89
ANISOU  552  N   PRO  69   1574     1661    2803  -201   -103  -280
ATOM    553  CA  PRO  69  -15.877 15.182  47.339 1.000 16.42
ANISOU  553  CA  PRO  69   1428     1903    2908  -251   -148  -218
ATOM    554  C   PRO  69  -15.168 13.889  47.684 1.000 17.22
ANISOU  554  C   PRO  69   1633     1578    3331  -199    266  -424
ATOM    555  O   PRO  69  -15.794 12.997  48.287 1.000 18.35
ANISOU  555  O   PRO  69   1815     1760    3399  -365    232  -376
ATOM    556  CB  PRO  69  -16.712 15.057  46.060 1.000 16.75
ANISOU  556  CB  PRO  69   1354     2279    2733  -360    155  -729
ATOM    557  CG  PRO  69  -15.799 15.637  45.008 1.000 16.72
ANISOU  557  CG  PRO  69   1553     1971    2827  -359     38  -452
ATOM    558  CD  PRO  69  -15.059 16.797  45.651 1.000 17.10
ANISOU  558  CD  PRO  69   1918     1804    2776  -344   -119  -313
ATOM    559  N   VAL  70  -13.884 13.746  47.366 1.000 18.07
ANISOU  559  N   VAL  70   1716     1764    3384   -89    292  -215
ATOM    560  CA  VAL  70  -13.100 12.594  47.824 1.000 17.34
ANISOU  560  CA  VAL  70   1763     1851    2974   -20    260  -196
ATOM    561  C   VAL  70  -11.995 13.142  48.720 1.000 17.59
ANISOU  561  C   VAL  70   2207     1686    2788  -180    159  -142
ATOM    562  O   VAL  70  -11.431 14.186  48.389 1.000 18.59
ANISOU  562  O   VAL  70   1794     1688    3581   -4 9    152
ATOM    563  CB  VAL  70  -12.429 11.757  46.724 1.000 18.10
ANISOU  563  CB  VAL  70   1922     1756    3199  -353    560  -446
ATOM    564  CG1 VAL  70  -13.441 10.754  46.213 1.000 20.54
ANISOU  564  CG1 VAL  70   1927     2611    3268  -369     76  -663
ATOM    565  CG2 VAL  70  -11.760 12.608  45.642 1.000 17.65
ANISOU  565  CG2 VAL  70   2379     1806    2520   145      9   1 0
ATOM    566  N   PRO  71  -11.697 12.466  49.815 1.000 16.21
ANISOU  566  N   PRO  71   1653     1810    2695   -34    464  -156
ATOM    567  CA  PRO  71  -10.839 13.091  50.833 1.000 17.32
ANISOU  567  CA  PRO  71   1795     1931    2854  -121    184   -12
ATOM    568  C   PRO  71   -9.356 12.804  50.590 1.000 17.67
ANISOU  568  C   PRO  71   1865     1927    2921    46  -57 156
ATOM    569  O   PRO  71   -8.585 12.223  51.350 1.000 20.57
ANISOU  569  O   PRO  71   2218     2247    3350   424     28 474
ATOM    570  CB  PRO  71  -11.362 12.458  52.117 1.000 19.76
ANISOU  570  CB  PRO  71   2976     1862    2668  -347    479  -304
ATOM    571  CG  PRO  71  -11.721 11.056  51.670 1.000 19.08
ANISOU  571  CG  PRO  71   2838     1805    2608  -267    259  -234
ATOM    572  CD  PRO  71  -12.323 11.220  50.286 1.000 17.97
ANISOU  572  CD  PRO  71   2314     1974    2538  -390    451  -167
ATOM    573  N   THR  72   -8.894 13.338  49.446 1.000 17.15
ANISOU  573  N   THR  72   1677     2231    2610  -215    -17  -165
ATOM    574  CA  THR  72   -7.573 13.012  48.935 1.000 16.83
ANISOU  574  CA  THR  72   1721     1863    2810   -60   -134  -472
ATOM    575  C   THR  72   -6.490 14.000  49.358 1.000 15.20
ANISOU  575  C   THR  72   1791     1623    2362  -304    163   -7 3
ATOM    576  O   THR  72   -5.320 13.729  49.104 1.000 17.49
ANISOU  576  O   THR  72   1776     1961    2908   -61    -31  -225
ATOM    577  CB  THR  72   -7.533 12.971  47.399 1.000 16.18
ANISOU  577  CB  THR  72   1552     1848    2748  -146    -86  -261
ATOM    578  OG1 THR  72   -8.091 14.238  47.005 1.000 17.81
ANISOU  578  OG1 THR  72   1856     1880    3031   -34    115  -191
ATOM    579  CG2 THR  72   -8.338 11.816  46.825 1.000 17.49
ANISOU  579  CG2 THR  72   1953     2087    2605  -550    181  -329
ATOM    580  N   MET  73   -6.877 15.098  49.987 1.000 17.78
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ANISOU  580  N    MET  73    2057   1748   2951    -58  -254  -426
ATOM    581  CA   MET  73   -5.867 16.117 50.394 1.000 16.58
ANISOU  581  CA   MET  73    1796   1708   2797     88  -302  -340
ATOM    582  C    MET  73   -5.073 16.618 49.198 1.000 16.65
ANISOU  582  C    MET  73    1514   1787   3027    241  -162  -420
ATOM    583  O    MET  73   -3.911 17.039 49.292 1.000 19.39
ANISOU  583  O    MET  73    1705   2313   3348   -112  -240  -540
ATOM    584  CB   MET  73   -4.925 15.531 51.469 1.000 20.56
ANISOU  584  CB   MET  73    2099   2629   3083    345  -507  -286
ATOM    585  CG   MET  73   -5.703 15.154 52.715 1.000 30.33
ANISOU  585  CG   MET  73    3008   5133   3384    -69  -609  1027
ATOM    586  SD   MET  73   -4.692 14.263 53.891 1.000 36.13
ANISOU  586  SD   MET  73    4121   5050   4558    336  -918  1596
ATOM    587  CE   MET  73   -3.165 13.987 53.082 1.000 58.07
ANISOU  587  CE   MET  73    2810   8820  10435    975 -1592 -3138
ATOM    588  N    ARG  74   -5.687 16.632 48.025 1.000 16.83
ANISOU  588  N    ARG  74    1699   1714   2982     -6  -211   131
ATOM    589  CA   ARG  74   -5.099 17.215 46.817 1.000 15.87
ANISOU  589  CA   ARG  74    1365   1618   3046    -17    52  -325
ATOM    590  C    ARG  74   -5.359 18.714 46.761 1.000 14.22
ANISOU  590  C    ARG  74    1484   1651   2269    141   -32   -42
ATOM    591  O    ARG  74   -4.472 19.488 46.353 1.000 15.45
ANISOU  591  O    ARG  74    1525   1758   2586    -12   -46   -73
ATOM    592  CB   ARG  74   -5.675 16.530 45.566 1.000 15.68
ANISOU  592  CB   ARG  74    1330   1667   2959    160   -14  -311
ATOM    593  CG   ARG  74   -4.890 16.941 44.299 1.000 16.46
ANISOU  593  CG   ARG  74    1325   1870   3059   -175    55  -395
ATOM    594  CD   ARG  74   -5.655 16.396 43.072 1.000 16.37
ANISOU  594  CD   ARG  74    1789   1533   2899   -181    -8  -177
ATOM    595  NE   ARG  74   -4.840 16.601 41.857 1.000 19.21
ANISOU  595  NE   ARG  74    2289   1990   3020   -142   241  -156
ATOM    596  CZ   ARG  74   -4.944 17.626 41.039 1.000 17.00
ANISOU  596  CZ   ARG  74    1545   2351   2562    -67    26  -147
ATOM    597  NH1  ARG  74   -5.878 18.573 41.213 1.000 18.00
ANISOU  597  NH1  ARG  74    1818   2383   2638     51   -66  -220
ATOM    598  NH2  ARG  74   -4.144 17.703 39.987 1.000 20.50
ANISOU  598  NH2  ARG  74    2285   2972   2532   -110   310  -387
ATOM    599  N    ARG  75   -6.579 19.151 47.101 1.000 15.28
ANISOU  599  N    ARG  75    1755   1544   2507    137   340  -173
ATOM    600  CA   ARG  75   -6.999 20.550 46.980 1.000 14.68
ANISOU  600  CA   ARG  75    1679   1627   2272    236    98  -150
ATOM    601  C    ARG  75   -7.956 20.869 48.122 1.000 14.75
ANISOU  601  C    ARG  75    1445   1747   2414    124   133  -233
ATOM    602  O    ARG  75   -8.760 19.989 48.460 1.000 18.12
ANISOU  602  O    ARG  75    1677   2109   3101   -156   458  -433
ATOM    603  CB   ARG  75   -7.747 20.804 45.668 1.000 15.59
ANISOU  603  CB   ARG  75    1577   2030   2317      1    46  -106
ATOM    604  CG   ARG  75   -6.848 20.634 44.441 1.000 15.63
ANISOU  604  CG   ARG  75    1495   2110   2334      9   147   220
ATOM    605  CD   ARG  75   -5.712 21.618 44.334 1.000 15.59
ANISOU  605  CD   ARG  75    1658   1792   2475     11   130   -10
ATOM    606  NE   ARG  75   -5.061 21.601 43.011 1.000 15.25
ANISOU  606  NE   ARG  75    1421   1779   2596    122   227   144
ATOM    607  CZ   ARG  75   -3.957 20.865 42.732 1.000 14.90
ANISOU  607  CZ   ARG  75    1079   2361   2221     71   -86   242
ATOM    608  NH1  ARG  75   -3.405 20.091 43.664 1.000 16.18
ANISOU  608  NH1  ARG  75    1804   1722   2623   -134  -387   337
ATOM    609  NH2  ARG  75   -3.418 20.940 41.518 1.000 15.83
ANISOU  609  NH2  ARG  75    1677   2107   2232   -193   221     0
ATOM    610  N    GLY  76   -7.895 22.086 48.651 1.000 16.06
ANISOU  610  N    GLY  76    1686   1904   2513    109   220  -464
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ATOM    611  CA  GLY  76   -8.858 22.532 49.637 1.000 16.67
ANISOU  611  CA  GLY  76   1650    2260    2425   -70    199  -612
ATOM    612  C   GLY  76   -8.602 22.002 51.036 1.000 16.32
ANISOU  612  C   GLY  76   1584    2014    2602  -126    268  -347
ATOM    613  O   GLY  76   -7.469 21.651 51.370 1.000 16.87
ANISOU  613  O   GLY  76   1638    1998    2773   -45    308  -218
ATOM    614  N   PHE  77   -9.643 22.025 51.863 1.000 16.88
ANISOU  614  N   PHE  77   1597    2141    2675    -7    283  -191
ATOM    615  CA  PHE  77   -9.584 21.646 53.274 1.000 17.61
ANISOU  615  CA  PHE  77   1838    2196    2656   109    328  -114
ATOM    616  C   PHE  77   -9.776 20.154 53.512 1.000 17.64
ANISOU  616  C   PHE  77   1855    2248    2600   -68    243  -185
ATOM    617  O   PHE  77  -10.589 19.528 52.831 1.000 18.23
ANISOU  617  O   PHE  77   1844    2488    2594  -183    357  -240
ATOM    618  CB  PHE  77  -10.698 22.383 53.998 1.000 17.70
ANISOU  618  CB  PHE  77   1730    2515    2480   162     65  -344
ATOM    619  CG  PHE  77  -10.877 22.081 55.473 1.000 19.61
ANISOU  619  CG  PHE  77   2405    2530    2515   195    261  -516
ATOM    620  CD1 PHE  77   -9.966 22.594 56.395 1.000 22.27
ANISOU  620  CD1 PHE  77   2514    3523    2426   431    -23  -527
ATOM    621  CD2 PHE  77  -11.917 21.285 55.941 1.000 21.31
ANISOU  621  CD2 PHE  77   3282    2070    2743    36    615  -288
ATOM    622  CE1 PHE  77  -10.116 22.294 57.742 1.000 21.05
ANISOU  622  CE1 PHE  77   2719    2768    2510   171    221  -339
ATOM    623  CE2 PHE  77  -12.079 20.991 57.300 1.000 25.09
ANISOU  623  CE2 PHE  77   2967    4120    2447  -501    625  -826
ATOM    624  CZ  PHE  77  -11.175 21.523 58.207 1.000 23.79
ANISOU  624  CZ  PHE  77   2263    3681    3095    -1    376  -756
ATOM    625  N   THR  78   -9.022 19.631 54.490 1.000 17.64
ANISOU  625  N   THR  78   1616    2161    2925    37    336    1
ATOM    626  CA  THR  78   -9.296 18.279 54.983 1.000 18.12
ANISOU  626  CA  THR  78   1926    2243    2717  -157    624   -28
ATOM    627  C   THR  78   -9.291 18.316 56.505 1.000 18.66
ANISOU  627  C   THR  78   2120    2308    2663  -367    519  -288
ATOM    628  O   THR  78   -8.335 18.821 57.095 1.000 21.42
ANISOU  628  O   THR  78   2158    2883    3098  -432     90  177
ATOM    629  CB  THR  78   -8.252 17.242 54.521 1.000 21.00
ANISOU  629  CB  THR  78   2973    2067    2939   113    428  -574
ATOM    630  OG1 THR  78   -8.027 17.392 53.104 1.000 21.18
ANISOU  630  OG1 THR  78   2544    2671    2833   160    317  -773
ATOM    631  CG2 THR  78   -8.735 15.832 54.800 1.000 26.65
ANISOU  631  CG2 THR  78   3759    2227    4141  -275    853  -618
ATOM    632  N   GLY  79  -10.311 17.804 57.181 1.000 20.36
ANISOU  632  N   GLY  79   2669    2379    2690  -670    630  -144
ATOM    633  CA  GLY  79  -10.344 17.679 58.623 1.000 25.96
ANISOU  633  CA  GLY  79   3871    3249    2745  -790    576  375
ATOM    634  C   GLY  79  -10.029 16.238 59.039 1.000 39.70
ANISOU  634  C   GLY  79   6407    3542    5135 -1658  -1944  1511
ATOM    635  O   GLY  79  -10.623 15.303 58.491 1.000 31.02
ANISOU  635  O   GLY  79   4327    3187    4272  -404    419   -75
ATOM    636  N   LEU  80   -9.069 16.055 59.936 1.000 36.07
ANISOU  636  N   LEU  80   4380    4536    4788  1381   -564  -835
ATOM    637  CA  LEU  80   -8.634 14.713 60.340 1.000 32.52
ANISOU  637  CA  LEU  80   3640    4083    4632   611   -502  -898
ATOM    638  C   LEU  80   -9.131 14.311 61.716 1.000 39.82
ANISOU  638  C   LEU  80   5051    4652    5428  -128    418  -538
ATOM    639  O   LEU  80   -9.998 14.963 62.305 1.000 37.05
ANISOU  639  O   LEU  80   5057    3807    5213  -292    666   87
ATOM    640  CB  LEU  80   -7.122 14.580 60.265 1.000 38.36
ANISOU  640  CB  LEU  80   3821    5456    5299  1568    -33 -1406
ATOM    641  CG  LEU  80   -6.488 14.753 58.883 1.000 38.27
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ANISOU  641  CG  LEU  80   3714
ATOM    642  CD1 LEU  80   -5.007  14.359   5900
ANISOU  642  CD1 LEU  80   2579    8505    4926    725   -288 -2588
ATOM    643  CD2 LEU  80   -7.170  13.856   6170          -1092  -76   3 7
ANISOU  643  CD2 LEU  80   4296    5601    57.854 1.000 40.75
ATOM    644  N   SER  98   -6.459  17.442   5587    872   -1965 -1793
ANISOU  644  N   SER  98   3404    6429    63.930 1.000 36.72
ATOM    645  CA  SER  98   -5.629  17.877   4118   -2114  -698 1948
ANISOU  645  CA  SER  98   6031    5376    62.824 1.000 39.59
ATOM    646  C   SER  98   -6.402  18.372   3635   -449   383  2177
ANISOU  646  C   SER  98   3806    3509    61.610 1.000 29.89
ATOM    647  O   SER  98   -7.474  17.856   4040    141   640  1204
ANISOU  647  O   SER  98   4936    4300    61.304 1.000 38.27
ATOM    648  CB  SER  98   -4.694  16.739   5303   -1107  395  885
ANISOU  648  CB  SER  98   3175    7425    62.358 1.000 44.06
ATOM    649  OG  SER  98   -3.672  17.368   6141    633   -753 2704
ANISOU  649  OG  SER  98   3497    6502    61.583 1.000 46.84
ATOM    650  N   MET  99   -5.829  19.317   7797    95  -408  2418
ANISOU  650  N   MET  99   5029    3458    60.869 1.000 28.56
ATOM    651  CA  MET  99   -6.426  19.941   2365   -1080 -550 546
ANISOU  651  CA  MET  99   2284    3549    59.700 1.000 21.44
ATOM    652  C   MET  99   -5.376  20.229   2315   -182  157  13 2
ANISOU  652  C   MET  99   2306    2592    58.624 1.000 19.16
ATOM    653  O   MET  99   -4.232  20.575   2382   -433  60 137
ANISOU  653  O   MET  99   2489    3920    58.930 1.000 23.34
ATOM    654  CB  MET  99   -7.164  21.209   2460   -773  225  -410
ANISOU  654  CB  MET  99   3172    3375    60.105 1.000 25.20
ATOM    655  CG  MET  99   -8.481  20.965   3028   -572  661  -547
ANISOU  655  CG  MET  99   3172    3862    60.872 1.000 25.85
ATOM    656  SD  MET  99   -9.251  22.517   2787   -275  739  -782
ANISOU  656  SD  MET  99   4405    3750    61.389 1.000 32.21
ATOM    657  CE  MET  99   -8.884  22.461   4083   -133  1580 -568
ANISOU  657  CE  MET  99   14782   11538   63.145 1.000 76.12
ATOM    658  N   CYS  100  -5.778  20.094   2603   -3321 3478 -3241
ANISOU  658  N   CYS  100  2434    2443    57.361 1.000 18.85
ATOM    659  CA  CYS  100  -4.868  20.333   2285   -160  93 194
ANISOU  659  CA  CYS  100  2251    2380    56.234 1.000 18.55
ATOM    660  C   CYS  100  -5.496  21.312   2418    92  127 236
ANISOU  660  C   CYS  100  1826    2031    55.228 1.000 16.26
ATOM    661  O   CYS  100  -6.728  21.308   2321    110  329  2
ANISOU  661  O   CYS  100  1741    2395    55.071 1.000 17.69
ATOM    662  CB  CYS  100  -4.604  18.982   2586   -69   154  -104
ANISOU  662  CB  CYS  100  2822    2081    55.545 1.000 18.46
ATOM    663  SG  CYS  100  -3.243  18.974   2111    98  118 511
ANISOU  663  SG  CYS  100  2622    2968    54.329 1.000 22.76
ATOM    664  N   TYR  101  -4.697  22.069   3058    307  391  1 0
ANISOU  664  N   TYR  101  1839    2473    54.498 1.000 17.49
ATOM    665  CA  TYR  101  -5.117  22.874   2332    46 291 224
ANISOU  665  CA  TYR  101  1946    1939    53.373 1.000 15.38
ATOM    666  C   TYR  101  -4.102  22.594   1960   -50   90  -262
ANISOU  666  C   TYR  101  1676    1543    52.245 1.000 13.65
ATOM    667  O   TYR  101  -2.896  22.629   1967   -2  -123  -151
ANISOU  667  O   TYR  101  1611    2231    52.475 1.000 15.95
ATOM    668  CB  TYR  101  -5.122  24.382   2217   -43   -232 -212
ANISOU  668  CB  TYR  101  2816    2082    53.739 1.000 19.02
ATOM    669  CG  TYR  101  -5.617  25.109   2328    234   48 -519
ANISOU  669  CG  TYR  101  2084    1895    52.498 1.000 17.85
ATOM    670  CD1 TYR  101  -6.964  25.134   2804    18  -26  -231
ANISOU  670  CD1 TYR  101  2042    1596    52.171 1.000 18.25
ATOM    671  CD2 TYR  101  -4.730  25.778   3298    29 28  -496
ANISOU  671  CD2 TYR  101  2037    1611    51.658 1.000 17.77
                                          3106   -46   -125 -127
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ATOM    672  CE1 TYR  101  -7.406  25.796  51.036 1.000 19.63
ANISOU  672  CE1 TYR  101  1977    1776    3704     88  -241  -221
ATOM    673  CE2 TYR  101  -5.147  26.386  50.478 1.000 20.46
ANISOU  673  CE2 TYR  101  2060    2608    3108    239    40  182
ATOM    674  CZ  TYR  101  -6.504  26.392  50.166 1.000 20.29
ANISOU  674  CZ  TYR  101  2187    2397    3127    -73  -353 -260
ATOM    675  OH  TYR  101  -6.932  26.995  49.000 1.000 23.34
ANISOU  675  OH  TYR  101  2790    2555    3523     -3  -641   52
ATOM    676  N   SER  102  -4.648  22.210  51.097 1.000 14.60
ANISOU  676  N   SER  102  1618    1890    2041    -61  -109 -477
ATOM    677  CA  SER  102  -3.797  21.792  49.980 1.000 14.52
ANISOU  677  CA  SER  102  1684    1802    2030   -108    62 -276
ATOM    678  C   SER  102  -4.011  22.670  48.747 1.000 14.99
ANISOU  678  C   SER  102  1545    1790    2361   -296   -41   21
ATOM    679  O   SER  102  -5.167  23.105  48.477 1.000 16.73
ANISOU  679  O   SER  102  1589    2342    2425      2   128   -3
ATOM    680  CB  SER  102  -4.163  20.340  49.593 1.000 13.82
ANISOU  680  CB  SER  102  1692    1548    2013    174     9 -138
ATOM    681  OG  SER  102  -3.996  19.476  50.720 1.000 16.06
ANISOU  681  OG  SER  102  1886    2066    2153     97  -121   63
ATOM    682  N   MET  103  -2.978  22.775  47.920 1.000 14.47
ANISOU  682  N   MET  103  1568    1724    2206     51   -59  152
ATOM    683  CA  MET  103  -3.102  23.552  46.687 1.000 16.58
ANISOU  683  CA  MET  103  2194    1933    2173    331   -74  253
ATOM    684  C   MET  103  -2.150  23.013  45.608 1.000 14.41
ANISOU  684  C   MET  103  1598    1793    2083   -202  -210   63
ATOM    685  O   MET  103  -1.157  22.347  45.920 1.000 16.24
ANISOU  685  O   MET  103  1527    2384    2259    -61   -23  468
ATOM    686  CB  MET  103  -2.716  25.004  46.835 1.000 28.78
ANISOU  686  CB  MET  103  6537    1318    3081    859  -207  366
ATOM    687  CG  MET  103  -3.258  25.986  47.801 1.000 22.60
ANISOU  687  CG  MET  103  2531    2157    3900   -161   -57 -291
ATOM    688  SD  MET  103  -2.338  27.505  47.506 1.000 20.60
ANISOU  688  SD  MET  103  2499    1927    3400     -4  -164 -226
ATOM    689  CE  MET  103  -2.587  27.945  45.804 1.000 21.63
ANISOU  689  CE  MET  103  2319    2601    3300    308   209 -236
ATOM    690  N   GLY  104  -2.439  23.430  44.378 1.000 15.44
ANISOU  690  N   GLY  104  1468    2228    2169    -68  -120  164
ATOM    691  CA  GLY  104  -1.511  23.199  43.276 1.000 16.13
ANISOU  691  CA  GLY  104  1688    2202    2241     42    65  469
ATOM    692  C   GLY  104  -1.583  24.355  42.294 1.000 15.76
ANISOU  692  C   GLY  104  1706    1997    2286    -32  -194  388
ATOM    693  O   GLY  104  -1.987  25.478  42.653 1.000 19.06
ANISOU  693  O   GLY  104  1953    2032    3256    -71   144  333
ATOM    694  N   THR  105  -1.151  24.092  41.054 1.000 16.73
ANISOU  694  N   THR  105  1685    2385    2287   -375   -55  515
ATOM    695  CA  THR  105  -1.115  25.205  40.094 1.000 17.06
ANISOU  695  CA  THR  105  1725    2390    2369   -231  -148  577
ATOM    696  C   THR  105  -2.513  25.631  39.635 1.000 19.55
ANISOU  696  C   THR  105  1768    1817    3842   -160  -346  525
ATOM    697  O   THR  105  -2.680  26.703  39.059 1.000 22.41
ANISOU  697  O   THR  105  2262    2116    4136   -119  -520  842
ATOM    698  CB  THR  105  -0.301  24.857  38.840 1.000 17.57
ANISOU  698  CB  THR  105  1759    2877    2038   -394  -343  377
ATOM    699  OG1 THR  105  -0.865  23.675  38.217 1.000 18.66
ANISOU  699  OG1 THR  105  2035    2449    2607   -140  -458  416
ATOM    700  CG2 THR  105   1.155  24.590  39.178 1.000 18.95
ANISOU  700  CG2 THR  105  1748    2853    2601   -105  -248  296
ATOM    701  N   ALA  106  -3.507  24.751  39.741 1.000 16.52
ANISOU  701  N   ALA  106  1596    2293    2389   -180    -1  298
ATOM    702  CA  ALA  106  -4.846  25.035  39.218 1.000 16.59
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- 36 -

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ANISOU 702   CA  ALA  106 1692      1952      2660    -214  -209 243
ATOM   703   C   ALA  106 -5.848 24.142   39.923 1.000 17.52
ANISOU 703   C   ALA  106 1651      1821      3186     26   -66 555
ATOM   704   O   ALA  106 -5.479 23.323   40.805 1.000 17.88
ANISOU 704   O   ALA  106 2038      2087      2668     59   -51 388
ATOM   705   CB  ALA  106 -4.862 24.838   37.713 1.000 20.31
ANISOU 705   CB  ALA  106 2331      2764      2620    -197  -403 440
ATOM   706   N   ASP  107 -7.149 24.329   39.717 1.000 18.00
ANISOU 706   N   ASP  107 1576      2208      3057    -77   -120 49
ATOM   707   CA  ASP  107 -8.217 23.535   40.344 1.000 17.46
ANISOU 707   CA  ASP  107 1563      2191      2881    -83   -472 363
ATOM   708   C   ASP  107 -8.173 23.753   41.859 1.000 17.74
ANISOU 708   C   ASP  107 1825      2044      2869    447   -269 362
ATOM   709   O   ASP  107 -8.458 22.854   42.650 1.000 18.95
ANISOU 709   O   ASP  107 1994      2230      2974    167   -133 402
ATOM   710   CB  ASP  107 -8.089 22.044   39.990 1.000 19.62
ANISOU 710   CB  ASP  107 2213      2300      2942    -394  -727 173
ATOM   711   CG  ASP  107 -8.370 21.842   38.508 1.000 20.81
ANISOU 711   CG  ASP  107 1952      3093      2862    -138  -532 -14
ATOM   712   OD1 ASP  107 -9.369 22.369   37.976 1.000 25.84
ANISOU 712   OD1 ASP  107 2524      3967      3327    222   -1149 -240
ATOM   713   OD2 ASP  107 -7.544 21.168   37.844 1.000 25.86
ANISOU 713   OD2 ASP  107 3314      2989      3523    391   -91  -89
ATOM   714   N   ASN  108 -7.893 24.962   42.298 1.000 18.18
ANISOU 714   N   ASN  108 2049      2075      2786    509   189  153
ATOM   715   CA  ASN  108 -7.831 25.263   43.740 1.000 17.10
ANISOU 715   CA  ASN  108 1804      1977      2715    266   291  327
ATOM   716   C   ASN  108 -9.158 25.716   44.314 1.000 17.11
ANISOU 716   C   ASN  108 1705      2061      2734    367   44   149
ATOM   717   O   ASN  108 -10.103 26.086   43.604 1.000 20.72
ANISOU 717   O   ASN  108 2066      2377      3430    759   -248 245
ATOM   718   CB  ASN  108 -6.799 26.379   43.969 1.000 19.90
ANISOU 718   CB  ASN  108 1770      2308      3483    186   298  -171
ATOM   719   CG  ASN  108 -5.400 25.862   43.717 1.000 17.24
ANISOU 719   CG  ASN  108 1709      2212      2628    200   68   184
ATOM   720   OD1 ASN  108 -4.986 24.850   44.277 1.000 17.42
ANISOU 720   OD1 ASN  108 2003      1984      2631    109   11   -62
ATOM   721   ND2 ASN  108 -4.644 26.487   42.834 1.000 18.41
ANISOU 721   ND2 ASN  108 2083      2326      2587    -82   300  -18
ATOM   722   N   LEU  109 -9.308 25.509   45.607 1.000 18.09
ANISOU 722   N   LEU  109 1795      2294      2786    349   344  1.0
ATOM   723   CA  LEU  109 -10.532 25.803   46.369 1.000 19.11
ANISOU 723   CA  LEU  109 1763      2200      3296    14   476  -598
ATOM   724   C   LEU  109 -10.169 26.790   47.457 1.000 17.40
ANISOU 724   C   LEU  109 1682      1937      2990    251   129  -207
ATOM   725   O   LEU  109 -9.443 26.423   48.395 1.000 21.18
ANISOU 725   O   LEU  109 2443      1922      3684    174   -520 2
ATOM   726   CB  LEU  109 -11.100 24.504   46.940 1.000 17.10
ANISOU 726   CB  LEU  109 1888      2142      2469    199   426  -630
ATOM   727   CG  LEU  109 -11.520 23.425   45.944 1.000 18.07
ANISOU 727   CG  LEU  109 2515      1943      2409    190   -198 -363
ATOM   728   CD1 LEU  109 -11.895 22.124   46.654 1.000 20.06
ANISOU 728   CD1 LEU  109 2842      2406      2375    -331  -175 -200
ATOM   729   CD2 LEU  109 -12.630 23.908   45.035 1.000 25.24
ANISOU 729   CD2 LEU  109 3481      2892      3217    306   -992 -111
ATOM   730   N   PHE  110 -10.609 28.036   47.313 1.000 17.25
ANISOU 730   N   PHE  110 1584      1926      3045    272   184  -132
ATOM   731   CA  PHE  110 -10.235 29.071   48.277 1.000 18.20
ANISOU 731   CA  PHE  110 1751      1816      3346    169   221  -160
ATOM   732   C   PHE  110 -11.409 29.567   49.106 1.000 19.93
ANISOU 732   C   PHE  110 2077      1609      3886    71   650  -335
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ATOM      733  O   PHE   110  -12.433  29.948   48.494  1.000  24.64
ANISOU    733  O   PHE   110   2051    2461     4851     612    328   -779
ATOM      734  CB  PHE   110   -9.607  30.243   47.520  1.000  19.92
ANISOU    734  CB  PHE   110   2367    1876     3324     224    619    -93
ATOM      735  CG  PHE   110   -8.380  29.986   46.688  1.000  19.47
ANISOU    735  CG  PHE   110   2009    2209     3179    -321    327   -791
ATOM      736  CD1 PHE   110   -7.177  29.680   47.287  1.000  20.59
ANISOU    736  CD1 PHE   110   2071    2080     3674    -274    236   -331
ATOM      737  CD2 PHE   110   -8.437  30.035   45.299  1.000  20.19
ANISOU    737  CD2 PHE   110   2557    1914     3200     112    543   -289
ATOM      738  CE1 PHE   110   -6.034  29.454   46.559  1.000  21.06
ANISOU    738  CE1 PHE   110   2020    2309     3673    -386    165   -622
ATOM      739  CE2 PHE   110   -7.277  29.811   44.547  1.000  20.77
ANISOU    739  CE2 PHE   110   2495    2138     3257     197    504   -398
ATOM      740  CZ  PHE   110   -6.081  29.518   45.175  1.000  22.42
ANISOU    740  CZ  PHE   110   2747    2092     3678     531    339   -357
ATOM      741  N   PRO   111  -11.238  29.718   50.416  1.000  22.11
ANISOU    741  N   PRO   111   2250    2153     3996     -72    871   -620
ATOM      742  CA  PRO   111  -12.287  30.389   51.195  1.000  28.23
ANISOU    742  CA  PRO   111   3895    2210     4621     698   1514   -671
ATOM      743  C   PRO   111  -12.333  31.866   50.784  1.000  30.57
ANISOU    743  C   PRO   111   4528    2026     5061     410    410  -1041
ATOM      744  O   PRO   111  -11.390  32.340   50.115  1.000  31.71
ANISOU    744  O   PRO   111   4040    2236     5774    -179   -597   -12
ATOM      745  CB  PRO   111  -11.799  30.250   52.627  1.000  33.20
ANISOU    745  CB  PRO   111   5609    2702     4303     671   1671   -790
ATOM      746  CG  PRO   111  -10.646  29.326   52.647  1.000  26.04
ANISOU    746  CG  PRO   111   2742    3316     3835    -931   1324   -192
ATOM      747  CD  PRO   111  -10.161  29.149   51.230  1.000  22.15
ANISOU    747  CD  PRO   111   2587    2307     3522    -471    541   -623
ATOM      748  N   SER   112  -13.337  32.641   51.150  1.000  42.13
ANISOU    748  N   SER   112   7176    2716     6115    2074   1731   -526
ATOM      749  CA  SER   112  -13.368  34.026   50.672  1.000  44.05
ANISOU    749  CA  SER   112   6799    2255     7684    1107   -485   -826
ATOM      750  C   SER   112  -13.262  34.157   49.149  1.000  68.28
ANISOU    750  C   SER   112  13632    4498     7812   -1855  -2077   1301
ATOM      751  O   SER   112  -12.347  34.825   48.646  1.000  95.18
ANISOU    751  O   SER   112  15991   11425     8747   -4337    -70   1985
ATOM      752  CB  SER   112  -12.493  35.069   51.349  1.000  39.31
ANISOU    752  CB  SER   112   2247    4535     8153     580   1662  -1437
ATOM      753  OG  SER   112  -11.474  34.624   52.213  1.000  37.49
ANISOU    753  OG  SER   112   7213    2453     4579     806    747  -1152
ATOM      754  N   ASP   114   -9.515  37.322   49.945  1.000  36.40
ANISOU    754  N   ASP   114   3476    2118     8237    1254    403   1484
ATOM      755  CA  ASP   114   -8.205  37.586   50.600  1.000  30.79
ANISOU    755  CA  ASP   114   3503    2856     5340    1229   1240   996
ATOM      756  C   ASP   114   -7.242  36.402   50.648  1.000  26.16
ANISOU    756  C   ASP   114   2581    2404     4955     601   1114   804
ATOM      757  O   ASP   114   -6.031  36.458   50.338  1.000  25.45
ANISOU    757  O   ASP   114   2302    2503     4866     -43    602   131
ATOM      758  CB  ASP   114   -8.595  37.874   52.075  1.000  43.68
ANISOU    758  CB  ASP   114   7509    2783     6304    1157   2727   -210
ATOM      759  CG  ASP   114   -7.391  38.386   52.835  1.000  46.96
ANISOU    759  CG  ASP   114   9259    3225     5359    2517    519   107
ATOM      760  OD1 ASP   114   -6.487  38.959   52.189  1.000  83.49
ANISOU    760  OD1 ASP   114  13724    9866     8132   -6354    650  -3056
ATOM      761  OD2 ASP   114   -7.370  38.262   54.071  1.000 113.59
ANISOU    761  OD2 ASP   114  27880   10550     4730   -6984   -159  -2575
ATOM      762  N   PHE   115   -7.831  35.323   51.153  1.000  22.32
ANISOU    762  N   PHE   115   2620    2062     3799     204    954   -114
ATOM      763  CA  PHE   115   -7.115  34.026   51.183  1.000  22.69
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ANISOU  763  CA  PHE  115 2765      1909     3947     118   1093 -187
ATOM    764  C   PHE  115 -6.502   33.754   49.816  1.000 21.49
ANISOU  764  C   PHE  115 2146      2316     3702     305    559  -255
ATOM    765  O   PHE  115 -5.328   33.362   49.758  1.000 20.51
ANISOU  765  O   PHE  115 2153      2011     3627     323    488  -158
ATOM    766  CB  PHE  115 -8.096   32.928   51.638  1.000 20.76
ANISOU  766  CB  PHE  115 2369      1946     3574      -3    563  -473
ATOM    767  CG  PHE  115 -7.496   31.590   51.998  1.000 20.23
ANISOU  767  CG  PHE  115 2369      1854     3463    -155    629  -377
ATOM    768  CD1 PHE  115 -6.915   30.756   51.041  1.000 20.35
ANISOU  768  CD1 PHE  115 2572      1786     3372    -195    112  -756
ATOM    769  CD2 PHE  115 -7.474   31.152   53.309  1.000 21.11
ANISOU  769  CD2 PHE  115 2802      1932     3287    -113     17  -689
ATOM    770  CE1 PHE  115 -6.351   29.538   51.325  1.000 21.09
ANISOU  770  CE1 PHE  115 2502      1728     3784    -295    471  -538
ATOM    771  CE2 PHE  115 -6.938   29.901   53.623  1.000 27.40
ANISOU  771  CE2 PHE  115 5012      1955     3?45     444     43  -572
ATOM    772  CZ  PHE  115 -6.332   29.110   52.655  1.000 24.92
ANISOU  772  CZ  PHE  115 3356      1889     4222      50   1519   221
ATOM    773  N   GLU  116 -7.301   33.768   48.757  1.000 21.64
ANISOU  773  N   GLU  116 2396      1835     3990     338    261   -13
ATOM    774  CA  GLU  116 -6.750   33.424   47.444  1.000 20.90
ANISOU  774  CA  GLU  116 2235      1965     3742     224     74   116
ATOM    775  C   GLU  116 -5.550   34.262   47.054  1.000 20.32
ANISOU  775  C   GLU  116 1978      1899     3845     439   -108   448
ATOM    776  O   GLU  116 -4.544   33.679   46.604  1.000 20.18
ANISOU  776  O   GLU  116 2209      2147     3312     424     73   139
ATOM    777  CB  GLU  116 -7.851   33.561   46.385  1.000 24.22
ANISOU  777  CB  GLU  116 2425      2638     4139    -467   -237   519
ATOM    778  CG  GLU  116 -7.339   33.331   44.980  1.000 23.27
ANISOU  778  CG  GLU  116 2425      2465     3952      -7   -494   750
ATOM    779  CD  GLU  116 -8.401   33.273   43.910  1.000 25.02
ANISOU  779  CD  GLU  116 2695      2703     4107    -510   -739  1509
ATOM    780  OE1 GLU  116 -9.617   33.306   44.207  1.000 34.83
ANISOU  780  OE1 GLU  116 2466      4606     6161    -203   -928  1566
ATOM    781  OE2 GLU  116 -8.001   33.030   42.763  1.000 40.92
ANISOU  781  OE2 GLU  116 4389      7172     3988     -24   -968   693
ATOM    782  N   ARG  117 -5.549   35.571   47.300  1.000 20.60
ANISOU  782  N   ARG  117 2299      1811     3718     382    -10   469
ATOM    783  CA  ARG  117 -4.374   36.374   46.866  1.000 22.65
ANISOU  783  CA  ARG  117 2230      1791     4586     351    107   153
ATOM    784  C   ARG  117 -3.163   35.911   47.648  1.000 21.87
ANISOU  784  C   ARG  117 2269      1865     4178     252    179    97
ATOM    785  O   ARG  117 -2.060   35.789   47.102  1.000 22.10
ANISOU  785  O   ARG  117 2197      2270     3931     216     41   205
ATOM    786  CB  ARG  117 -4.682   37.861   47.105  1.000 29.47
ANISOU  786  CB  ARG  117 2849      1691     6658     259   -555    -1
ATOM    787  CG  ARG  117 -3.485   38.815   47.046  1.000 40.24
ANISOU  787  CG  ARG  117 3905      2567     8818    -819  -1330  -476
ATOM    788  CD  ARG  117 -3.745   40.160   47.716  1.000 52.75
ANISOU  788  CD  ARG  117 4698      2848    12496    -595  -1653 -1669
ATOM    789  NE  ARG  117 -3.934   39.987   49.155  1.000 68.00
ANISOU  789  NE  ARG  117 8247      4719    12872     422   1842 -3441
ATOM    790  CZ  ARG  117 -3.166   40.448   50.126  1.000 78.38
ANISOU  790  CZ  ARG  117 13026     5658    11097     283    448 -2498
ATOM    791  NH1 ARG  117 -2.097   41.186   49.849  1.000 89.01
ANISOU  791  NH1 ARG  117 14218    11488     8115   -3550  -6761  3577
ATOM    792  NH2 ARG  117 -3.479   40.189   51.391  1.000 82.58
ANISOU  792  NH2 ARG  117 16575     2856    11947    2617   2551 -2095
ATOM    793  N   ILE  118 -3.334   35.759   48.954  1.000 21.70
ANISOU  793  N   ILE  118 2319      1797     4127     311    271  -314
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ATOM    794  CA  ILE  118  -2.206  35.425  49.810 1.000 20.99
ANISOU  794  CA  ILE  118  2546    1624    3805    408   294  -470
ATOM    795  C   ILE  118  -1.596  34.073  49.475 1.000 18.79
ANISOU  795  C   ILE  118  2222    1534    3384    218   573  -201
ATOM    796  O   ILE  118  -0.409  33.858  49.323 1.000 17.27
ANISOU  796  O   ILE  118  2194    1663    2707    283   351  -136
ATOM    797  CB  ILE  118  -2.588  35.542  51.293 1.000 22.62
ANISOU  797  CB  ILE  118  2702    1997    3895    276   416  -856
ATOM    798  CG1 ILE  118  -2.916  36.995  51.700 1.000 27.54
ANISOU  798  CG1 ILE  118  5077    1801    3587    503   768  -401
ATOM    799  CG2 ILE  118  -1.552  34.940  52.206 1.000 23.59
ANISOU  799  CG2 ILE  118  3084    2274    3606    183   254  -818
ATOM    800  CD1 ILE  118  -3.493  37.115  53.096 1.000 29.35
ANISOU  800  CD1 ILE  118  5212    2054    3885    558   1114 -645
ATOM    801  N   TRP  119  -2.454  33.069  49.341 1.000 17.93
ANISOU  801  N   TRP  119  2378    1605    2828    147   -80  -269
ATOM    802  CA  TRP  119  -2.035  31.688  49.103 1.000 16.57
ANISOU  802  CA  TRP  119  2126    1538    2630    152   -25  -16
ATOM    803  C   TRP  119  -1.575  31.476  47.676 1.000 16.98
ANISOU  803  C   TRP  119  2126    1723    2604    269   -91  -51
ATOM    804  O   TRP  119  -0.700  30.640  47.455 1.000 17.58
ANISOU  804  O   TRP  119  1892    1674    3113    135   181  6 3
ATOM    805  CB  TRP  119  -3.127  30.690  49.591 1.000 18.32
ANISOU  805  CB  TRP  119  2156    1789    3014    -34   5   -7
ATOM    806  CG  TRP  119  -2.934  30.457  51.082 1.000 18.27
ANISOU  806  CG  TRP  119  2208    1711    3025    86  349 5 6
ATOM    807  CD1 TRP  119  -3.354  31.273  52.103 1.000 20.36
ANISOU  807  CD1 TRP  119  2624    2029    3083    156   276  -153
ATOM    808  CD2 TRP  119  -2.213  29.383  51.683 1.000 18.61
ANISOU  808  CD2 TRP  119  2049    2055    2967    134   263  1 1 0
ATOM    809  NE1 TRP  119  -2.955  30.773  53.323 1.000 20.55
ANISOU  809  NE1 TRP  119  2471    2229    3109    92  266 -106
ATOM    810  CE2 TRP  119  -2.260  29.603  53.073 1.000 20.21
ANISOU  810  CE2 TRP  119  2529    2258    2893    180   754  2 9 7
ATOM    811  CE3 TRP  119  -1.576  28.258  51.147 1.000 18.29
ANISOU  811  CE3 TRP  119  2258    1714    2977    42  -70  -2 0
ATOM    812  CZ2 TRP  119  -1.636  28.728  53.981 1.000 21.97
ANISOU  812  CZ2 TRP  119  2876    2526    2945    384   51 -106
ATOM    813  CZ3 TRP  119  -0.968  27.375  52.045 1.000 19.35
ANISOU  813  CZ3 TRP  119  2576    2028    2750    187   415  2 9 9
ATOM    814  CH2 TRP  119  -1.026  27.618  53.442 1.000 21.67
ANISOU  814  CH2 TRP  119  3033    2379    2823    350   250  9 7
ATOM    815  N   THR  120  -2.129  32.192  46.701 1.000 16.93
ANISOU  815  N   THR  120  2023    1833    2577    122   -112 1 8
ATOM    816  CA  THR  120  -1.598  32.086  45.342 1.000 17.85
ANISOU  816  CA  THR  120  1915    2469    2398    222   -371 -3 2 4
ATOM    817  C   THR  120  -0.169  32.587  45.288 1.000 17.15
ANISOU  817  C   THR  120  2031    1855    2629    241   -155 1 9 2
ATOM    818  O   THR  120  0.700   31.960  44.674 1.000 18.67
ANISOU  818  O   THR  120  1996    1887    3212    389   -131 1 7 7
ATOM    819  CB  THR  120  -2.487  32.865  44.344 1.000 18.10
ANISOU  819  CB  THR  120  1951    2204    2720    28  -93 3 4 5
ATOM    820  OG1 THR  120  -3.773  32.238  44.284 1.000 20.49
ANISOU  820  OG1 THR  120  1807    2801    3179    59  -363  5 5 8
ATOM    821  CG2 THR  120  -1.919  32.803  42.933 1.000 22.46
ANISOU  821  CG2 THR  120  2438    3266    2830    475   118  7 0 5
ATOM    822  N   GLN  121  0.094   33.708  45.956 1.000 18.62
ANISOU  822  N   GLN  121  2180    1657    3237    123   -94  2 1 3
ATOM    823  CA  GLN  121  1.466   34.232  45.993 1.000 18.15
ANISOU  823  CA  GLN  121  2077    1698    3119    77  96 5 2 0
ATOM    824  C   GLN  121  2.412   33.284  46.718 1.000 17.04
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ANISOU 824   C    GLN  121 2022    1431   3019    192    234  223
ATOM   825   O    GLN  121 3.510   33.047 46.270 1.000 19.32
ANISOU 825   O    GLN  121 1894    1800   3645     93    246  129
ATOM   826   CB   GLN  121 1.490   35.579 46.756 1.000 22.90
ANISOU 826   CB   GLN  121 2520    1479   4702    327   -812  271
ATOM   827   CG   GLN  121 2.888   36.159 46.871 1.000 27.04
ANISOU 827   CG   GLN  121 2949    2062   5262   -346   -400  132
ATOM   828   CD   GLN  121 3.530   36.511 45.535 1.000 31.94
ANISOU 828   CD   GLN  121 3307    2733   6097    983   1031  9 9
ATOM   829   OE1  GLN  121 4.660   36.085 45.247 1.000 62.76
ANISOU 829   OE1  GLN  121 3009    9570  11267   1758   2366 2029
ATOM   830   NE2  GLN  121 2.859   37.306 44.716 1.000 55.89
ANISOU 830   NE2  GLN  121 6516    7728   6993   2815   1745 3249
ATOM   831   N    TYR  122 1.997   32.791 47.871 1.000 16.87
ANISOU 831   N    TYR  122 2389    1518   2501     71   -161 -54
ATOM   832   CA   TYR  122 2.795   31.881 48.683 1.000 17.97
ANISOU 832   CA   TYR  122 2564    1600   2666    176   -224 -56
ATOM   833   C    TYR  122 3.080   30.600 47.909 1.000 16.83
ANISOU 833   C    TYR  122 1870    1460   3065    -31    -57 -98
ATOM   834   O    TYR  122 4.224   30.129 47.823 1.000 17.67
ANISOU 834   O    TYR  122 1891    1952   2872    189   -220 126
ATOM   835   CB   TYR  122 2.018   31.522 49.960 1.000 18.01
ANISOU 835   CB   TYR  122 2526    1821   2495      2   -325 -55
ATOM   836   CG   TYR  122 2.753   30.619 50.898 1.000 17.89
ANISOU 836   CG   TYR  122 2332    1695   2769    255   -147 -51
ATOM   837   CD1  TYR  122 4.058   30.901 51.323 1.000 21.71
ANISOU 837   CD1  TYR  122 2883    2101   3267   -257   -913 3 4
ATOM   838   CD2  TYR  122 2.107   29.496 51.415 1.000 21.29
ANISOU 838   CD2  TYR  122 2428    2026   3634    128   -267 468
ATOM   839   CE1  TYR  122 4.680   30.037 52.212 1.000 21.27
ANISOU 839   CE1  TYR  122 2681    2045   3356    140   -725 -210
ATOM   840   CE2  TYR  122 2.746   28.637 52.290 1.000 24.50
ANISOU 840   CE2  TYR  122 3376    1876   4057   -292  -1163 506
ATOM   841   CZ   TYR  122 4.043   28.914 52.675 1.000 22.16
ANISOU 841   CZ   TYR  122 3161    1881   3379     95   -909 -128
ATOM   842   OH   TYR  122 4.699   28.079 53.566 1.000 23.72
ANISOU 842   OH   TYR  122 3471    2398   3142     52  -1005 -56
ATOM   843   N    PHE  123 2.074   30.023 47.253 1.000 16.21
ANISOU 843   N    PHE  123 1794    1571   2793     49    -66 -54
ATOM   844   CA   PHE  123 2.347   28.843 46.397 1.000 15.71
ANISOU 844   CA   PHE  123 1622    1800   2548     34   -142 -103
ATOM   845   C    PHE  123 3.378   29.188 45.337 1.000 15.96
ANISOU 845   C    PHE  123 1681    1304   3078     42    90 3
ATOM   846   O    PHE  123 4.276   28.375 45.037 1.000 15.47
ANISOU 846   O    PHE  123 1703    1437   2739     54    14 -24
ATOM   847   CB   PHE  123 1.036   28.309 45.779 1.000 15.07
ANISOU 847   CB   PHE  123 1460    1364   2904    209   -148 1
ATOM   848   CG   PHE  123 1.241   27.104 44.879 1.000 17.41
ANISOU 848   CG   PHE  123 2090    1620   2906    -39   -179 -238
ATOM   849   CD1  PHE  123 1.170   25.831 45.452 1.000 17.41
ANISOU 849   CD1  PHE  123 1680    1439   3494     72   -119 -255
ATOM   850   CD2  PHE  123 1.490   27.259 43.513 1.000 18.22
ANISOU 850   CD2  PHE  123 1723    2331   2870    -96   -216 -372
ATOM   851   CE1  PHE  123 1.419   24.740 44.636 1.000 19.15
ANISOU 851   CE1  PHE  123 2112    1766   3397    212   -540 -536
ATOM   852   CE2  PHE  123 1.722   26.144 42.717 1.000 19.63
ANISOU 852   CE2  PHE  123 1901    2476   3083   -134   -261 -632
ATOM   853   CZ   PHE  123 1.635   24.868 43.274 1.000 19.40
ANISOU 853   CZ   PHE  123 1525    2424   3421    385   -529 -490
ATOM   854   N    ASP  124 3.164   30.304 44.636 1.000 16.86
ANISOU 854   N    ASP  124 1947    1466   2992    -23   -110 124
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ATOM    855  CA   ASP  124  4.060    30.640  43.544 1.000 17.82
ANISOU  855  CA   ASP  124  2103    1747    2921    405   -24   3 14
ATOM    856  C    ASP  124  5.490    30.733  44.024 1.000 17.52
ANISOU  856  C    ASP  124  1999    1439    3219    181    94  8 9
ATOM    857  O    ASP  124  6.402    30.324  43.317 1.000 17.18
ANISOU  857  O    ASP  124  2086    1427    3015    34 181 177
ATOM    858  CB   AASP 124  3.639    31.997  42.942 0.534 21.77
ANISOU  858  CB   AASP 124  3475    2089    2706    642  -372 597
ATOM    859  CG   AASP 124  4.381    32.304  41.659 0.534 19.28
ANISOU  859  CG   AASP 124  2376    1982    2967    173  -553 495
ATOM    860  OD1  AASP 124  4.223    31.538  40.678 0.534 21.03
ANISOU  860  OD1  AASP 124  2189    2636    3164    -28   76  2 1
ATOM    861  OD2  AASP 124  5.068    33.348  41.639 0.534 24.96
ANISOU  861  OD2  AASP 124  3681    2052    3752   -296 -1067  88 9
ATOM    862  CB   BASP 124  3.632    31.975  42.908 0.466 19.67
ANISOU  862  CB   BASP 124  2559    1993    2923   1003   673  4 46
ATOM    863  CG   BASP 124  2.368    31.849  42.089 0.466 22.78
ANISOU  863  CG   BASP 124  3552    3217    1889    872   177  11 75
ATOM    864  OD1  BASP 124  2.021    30.781  41.545 0.466 27.78
ANISOU  864  OD1  BASP 124  2138    3932    4483    100   503  3 47
ATOM    865  OD2  BASP 124  1.703    32.893  41.902 0.466 29.73
ANISOU  865  OD2  BASP 124  3845    3804    3646   1239  -312 16 44
ATOM    866  N    ARG  125  5.669    31.416  45.153 1.000 16.65
ANISOU  866  N    ARG  125  1942    1350    3032    276   139  2 76
ATOM    867  CA   ARG  125  7.038    31.528  45.646 1.000 17.58
ANISOU  867  CA   ARG  125  1918    1819    2944     98 177 2 41
ATOM    868  C    ARG  125  7.662    30.188  45.992 1.000 17.38
ANISOU  868  C    ARG  125  1544    1777    3282    -42    40  2 73
ATOM    869  O    ARG  125  8.841    29.942  45.754 1.000 18.26
ANISOU  869  O    ARG  125  1639    1669    3631    -97    91  -2 33
ATOM    870  CB   ARG  125  7.062    32.468  46.851 1.000 20.45
ANISOU  870  CB   ARG  125  2219    2162    3387   -244   450   -2 74
ATOM    871  CG   ARG  125  6.860    33.916  46.344 1.000 28.23
ANISOU  871  CG   ARG  125  3178    2007    5542    147   666   -2 22
ATOM    872  CD   ARG  125  6.693    34.891  47.477 1.000 31.76
ANISOU  872  CD   ARG  125  3065    2279    6725   -628  1455  -9 93
ATOM    873  NE   ARG  125  6.496    36.221  46.932 1.000 40.81
ANISOU  873  NE   ARG  125  3332    2095   10080   -169  1790  -6 94
ATOM    874  CZ   ARG  125  5.970    37.229  47.628 1.000 43.42
ANISOU  874  CZ   ARG  125  4531    2891    9076    839  2072 -188
ATOM    875  NH1  ARG  125  5.551    37.025  48.866 1.000 38.62
ANISOU  875  NH1  ARG  125  3999    2858    7816   -858    61 -700
ATOM    876  NH2  ARG  125  5.858    33.382  47.006 1.000 42.11
ANISOU  876  NH2  ARG  125  5319    2652    8030    908  1627 -681
ATOM    877  N    GLN  126  6.884    29.282  46.557 1.000 15.28
ANISOU  877  N    GLN  126  1876    1527    2404    -70    13  -6 0
ATOM    878  CA   GLN  126  7.376    27.929  46.853 1.000 15.37
ANISOU  878  CA   GLN  126  1726    1625    2488    -54  -312 2 0
ATOM    879  C    GLN  126  7.649    27.150  45.578 1.000 14.21
ANISOU  879  C    GLN  126  1643    1268    2488    -75  -398 7 1
ATOM    880  O    GLN  126  8.682    26.462  45.496 1.000 15.36
ANISOU  880  O    GLN  126  1531    1554    2753    -37  -316 5 3
ATOM    881  CB   GLN  126  6.356    27.158  47.702 1.000 17.40
ANISOU  881  CB   GLN  126  2034    1313    3264    158   293  4 3
ATOM    882  CG   GLN  126  6.336    27.634  49.150 1.000 26.14
ANISOU  882  CG   GLN  126  4503    1690    3739    431  1908 -732
ATOM    883  CD   GLN  126  5.208    26.998  49.891 1.000 21.95
ANISOU  883  CD   GLN  126  2957    2670    2713      0  -123  10 2
ATOM    884  OE1  GLN  126  4.051    27.372  49.730 1.000 42.52
ANISOU  884  OE1  GLN  126  2994    5747    7416    -62 -1272 3147
ATOM    885  NE2  GLN  126  5.524    26.003  50.691 1.000 28.32
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ANISOU  885   NE2 GLN    126 2867         3971      3922      -184  -780 1311
ATOM    886   N   TYR    127 6.797   27.287   44.574  1.000 14.52
ANISOU  886   N   TYR    127 1629         1438      2448       -41  -373 - 36
ATOM    887   CA  TYR    127 7.039   26.554   43.317  1.000 13.93
ANISOU  887   CA  TYR    127 1563         1455      2277      -136  -234 150
ATOM    888   C   TYR    127 8.289   27.091   42.624  1.000 14.54
ANISOU  888   C   TYR    127 1461         1318      2745        24  -195 190
ATOM    889   O   TYR    127 9.133   26.345   42.140  1.000 14.39
ANISOU  889   O   TYR    127 1611         1580      2277        34  -252   9
ATOM    890   CB  TYR    127 5.801   26.676   42.435  1.000 14.00
ANISOU  890   CB  TYR    127 1510         1549      2258        29  -180 - 70
ATOM    891   CG  TYR    127 5.752   25.795   41.202  1.000 12.33
ANISOU  891   CG  TYR    127 1315         1037      2334       -34  -187 4 5
ATOM    892   CD1 TYR    127 6.483   24.626   41.024  1.000 14.05
ANISOU  892   CD1 TYR    127 1810         1158      2371         7   -84 - 8
ATOM    893   CD2 TYR    127 4.837   26.086   40.206  1.000 15.71
ANISOU  893   CD2 TYR    127 1936         1548      2484        55  -513 2 1
ATOM    894   CE1 TYR    127 6.382   23.829   39.899  1.000 13.10
ANISOU  894   CE1 TYR    127 1450          999 2529     -101      -227 - 62
ATOM    895   CE2 TYR    127 4.661   25.322   39.071  1.000 15.07
ANISOU  895   CE2 TYR    127 1928         1620      2177       158  -342 197
ATOM    896   CZ  TYR    127 5.440   24.179   38.934  1.000 13.71
ANISOU  896   CZ  TYR    127 1617         1348      2245      -146  -106 246
ATOM    897   OH  TYR    127 5.337   23.386   37.811  1.000 15.04
ANISOU  897   OH  TYR    127 1682         1755      2279       -87   -60 5 3
ATOM    898   N   THR    128 8.467   28.412   42.616  1.000 14.69
ANISOU  898   N   THR    128 1813         1324      2446      -154  -217 268
ATOM    899   CA  THR    128 9.673   28.984   42.011  1.000 14.67
ANISOU  899   CA  THR    128 1867         1469      2238       -98   -32 195
ATOM    900   C   THR    128 10.921  28.552   42.736  1.000 14.68
ANISOU  900   C   THR    128 1794         1318      2466        59  -123 - 285
ATOM    901   O   THR    128 11.900  28.166   42.062  1.000 15.45
ANISOU  901   O   THR    128 1715         1487      2667      -259   153 7 1
ATOM    902   CB  THR    128 9.572   30.544   42.069  1.000 16.02
ANISOU  902   CB  THR    128 2043         1348      2635       -79    59 479
ATOM    903   OG1 THR    128 8.519   30.849   41.162  1.000 19.14
ANISOU  903   OG1 THR    128 2226         2038      3008       195   -23 5 45
ATOM    904   CG2 THR    128 10.835  31.187   41.582  1.000 19.03
ANISOU  904   CG2 THR    128 2107         1329      3793       125   311 6 18
ATOM    905   N   ALA    129 10.933  28.564   44.085  1.000 14.21
ANISOU  905   N   ALA    129 1708         1266      2424      -137  -256 -181
ATOM    906   CA  ALA    129 12.108  28.110   44.836  1.000 15.08
ANISOU  906   CA  ALA    129 1670         1435      2624      -118  -210 - 225
ATOM    907   C   ALA    129 12.389  26.643   44.562  1.000 14.37
ANISOU  907   C   ALA    129 1706         1299      2457      -159  -203 157
ATOM    908   O   ALA    129 13.552  26.238   44.445  1.000 14.10
ANISOU  908   O   ALA    129 1758         1464      2137        -5  -244 - 148
ATOM    909   CB  ALA    129 11.887  28.313   46.313  1.000 17.08
ANISOU  909   CB  ALA    129 2132         1851      2506      -183  -514 - 239
ATOM    910   N   SER    130 11.343  25.819   44.553  1.000 14.18
ANISOU  910   N   SER    130 1884         1237      2267      -224  -257 173
ATOM    911   CA  SER    130 11.487  24.375   44.351  1.000 15.44
ANISOU  911   CA  SER    130 1840         1219      2807      -115  -135 - 7
ATOM    912   C   SER    130 12.072  24.114   42.965  1.000 14.45
ANISOU  912   C   SER    130 1345         1481      2665        78  -796 - 209
ATOM    913   O   SER    130 13.037  23.329   42.807  1.000 14.43
ANISOU  913   O   SER    130 1327         1382      2773       -74  -246 172
ATOM    914   CB  SER    130 10.120  23.677   44.663  1.000 17.54
ANISOU  914   CB  SER    130 1555         1225      3884      -379  -647 126
ATOM    915   OG  SER    130 9.268   23.888   43.558  1.000 27.32
ANISOU  915   OG  SER    130 2321         3168      4893        11 -1207 865
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ATOM    916  N   ARG 131 11.555  24.772  41.909 1.000 14.47
ANISOU  916  N   ARG 131 1421    1448    2628    161   -384 -166
ATOM    917  CA  ARG 131 12.163  24.598  40.592 1.000 14.91
ANISOU  917  CA  ARG 131 1689    1452    2525    -4    -526 -341
ATOM    918  C   ARG 131 13.605  25.079  40.566 1.000 14.05
ANISOU  918  C   ARG 131 1772    1435    2132    -72   -381 -173
ATOM    919  O   ARG 131 14.448  24.438  39.912 1.000 15.14
ANISOU  919  O   ARG 131 1829    1658    2267    -109  -170 -230
ATOM    920  CB  ARG 131 11.349  25.316  39.514 1.000 15.77
ANISOU  920  CB  ARG 131 1720    1613    2660    -54   -493 -94
ATOM    921  CG  ARG 131 9.970   24.737  39.251 1.000 16.08
ANISOU  921  CG  ARG 131 1703    1695    2711    -13   -647 -141
ATOM    922  CD  ARG 131 9.326   25.390  38.017 1.000 26.56
ANISOU  922  CD  ARG 131 3589    2689    3813    -1037 -2156 745
ATOM    923  NE  ARG 131 9.327   26.831  37.918 1.000 25.91
ANISOU  923  NE  ARG 131 2856    2814    4174    -979  -1682 1413
ATOM    924  CZ  ARG 131 8.472   27.716  38.413 1.000 31.86
ANISOU  924  CZ  ARG 131 3546    2861    5697    -254  -1094 2201
ATOM    925  NH1 ARG 131 7.467   27.244  39.138 1.000 31.34
ANISOU  925  NH1 ARG 131 5127    3636    3144    -1474 -458 -115
ATOM    926  NH2 ARG 131 8.633   29.032  38.235 1.000 40.12
ANISOU  926  NH2 ARG 131 3500    2831    8912    -582  -1620 1802
ATOM    927  N   ALA 132 13.893  26.186  41.236 1.000 13.42
ANISOU  927  N   ALA 132 1683    1385    2033    -85   -652 -24
ATOM    928  CA  ALA 132 15.246  26.751  41.128 1.000 13.38
ANISOU  928  CA  ALA 132 1617    1443    2022    -16   -499 -79
ATOM    929  C   ALA 132 16.225  25.808  41.837 1.000 13.37
ANISOU  929  C   ALA 132 1398    1365    2316    -93   -253 154
ATOM    930  O   ALA 132 17.306  25.586  41.328 1.000 14.43
ANISOU  930  O   ALA 132 1459    1772    2251    -91   -240 106
ATOM    931  CB  ALA 132 15.275  28.084  41.859 1.000 16.52
ANISOU  931  CB  ALA 132 2019    1243    3014    -199  -366 -236
ATOM    932  N   VAL 133 15.893  25.248  42.996 1.000 13.62
ANISOU  932  N   VAL 133 1522    1515    2139    -63   -362 86
ATOM    933  CA  VAL 133 16.839  24.363  43.689 1.000 14.86
ANISOU  933  CA  VAL 133 1902    1566    2179    120   -491 -27
ATOM    934  C   VAL 133 16.923  23.073  42.890 1.000 15.04
ANISOU  934  C   VAL 133 1390    1633    2690    -9    -220 -218
ATOM    935  O   VAL 133 18.036  22.538  42.773 1.000 15.49
ANISOU  935  O   VAL 133 1442    1814    2630    63    -193 -99
ATOM    936  CB  VAL 133 16.545  24.170  45.187 1.000 14.61
ANISOU  936  CB  VAL 133 1528    1789    2234    -45   -391 210
ATOM    937  CG1 VAL 133 15.362  23.267  45.453 1.000 16.78
ANISOU  937  CG1 VAL 133 1544    2123    2708    -249  -437 -81
ATOM    938  CG2 VAL 133 17.766  23.650  45.950 1.000 16.51
ANISOU  938  CG2 VAL 133 1769    1942    2561    -61   -831 64
ATOM    939  N   ALA 134 15.840  22.583  42.270 1.000 13.73
ANISOU  939  N   ALA 134 1605    1451    2160    -75   -397 185
ATOM    940  CA  ALA 134 15.951  21.369  41.451 1.000 14.21
ANISOU  940  CA  ALA 134 1505    1796    2100    116   -570 -33
ATOM    941  C   ALA 134 16.838  21.618  40.246 1.000 15.07
ANISOU  941  C   ALA 134 1766    1511    2450    43    -292 17
ATOM    942  O   ALA 134 17.600  20.750  39.800 1.000 14.36
ANISOU  942  O   ALA 134 1555    1567    2333    -60   -286 52
ATOM    943  CB  ALA 134 14.535  20.925  41.032 1.000 16.97
ANISOU  943  CB  ALA 134 1472    1943    3031    12    -470 -299
ATOM    944  N   ARG 135 16.752  22.808  39.631 1.000 15.48
ANISOU  944  N   ARG 135 1848    1600    2433    14    -341 -2
ATOM    945  CA  ARG 135 17.618  23.153  38.508 1.000 16.07
ANISOU  945  CA  ARG 135 2139    1230    2735    -138  -189 35
ATOM    946  C   ARG 135 19.082  23.057  38.955 1.000 15.70
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- 44 -

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ANISOU  946   C    ARG   135 2059      1370      2535   -134   27 1 2 1
ATOM    947   O    ARG   135 19.928   22.604   38.176 1.000 18.07
ANISOU  947   O    ARG   135 2317      2014      2534    108   256  2 7 6
ATOM    948   CB   ARG   135 17.277   24.585   38.096 1.000 21.96
ANISOU  948   CB   ARG   135 3936      1640      2767     -4 -1480 6 1 4
ATOM    949   CG   ARG   135 17.571   24.989   36.689 1.000 27.53
ANISOU  949   CG   ARG   135 5112      2482      2866    816   -610 5 9 5
ATOM    950   CD   ARG   135 16.930   26.332   36.393 1.000 23.27
ANISOU  950   CD   ARG   135 3548      2428      2865    148    61 1 3 7 1
ATOM    951   NE   ARG   135 15.551   26.309   35.928 1.000 22.68
ANISOU  951   NE   ARG   135 3488      1575      3556   -116   167  2 9 7
ATOM    952   CZ   ARG   135 14.520   26.858   36.562 1.000 25.90
ANISOU  952   CZ   ARG   135 3801      2165      3874    921   -506 - 1 7 9
ATOM    953   NH1  ARG   135 14.708   27.515   37.702 1.000 23.50
ANISOU  953   NH1  ARG   135 3582      2378      2969     94 137 5 3 2
ATOM    954   NH2  ARG   135 13.287   26.758   36.035 1.000 24.30
ANISOU  954   NH2  ARG   135 3520      2441      3272   -101   72 5 8 2
ATOM    955   N    GLU   136 19.403   23.533   40.149 1.000 15.76
ANISOU  955   N    GLU   136 1897      1696      2396   -178   17 3 1 8
ATOM    956   CA   GLU   136 20.752   23.431   40.694 1.000 15.16
ANISOU  956   CA   GLU   136 1687      1770      2302    -97   279  1 4 0
ATOM    957   C    GLU   136 21.186   22.001   40.978 1.000 16.74
ANISOU  957   C    GLU   136 1535      1704      3122   -148  -172 - 7 2
ATOM    958   O    GLU   136 22.350   21.637   40.701 1.000 17.42
ANISOU  958   O    GLU   136 1710      1908      2999      7   30 9 2
ATOM    959   CB   GLU   136 20.957   24.284   41.962 1.000 16.64
ANISOU  959   CB   GLU   136 2048      1785      2487     53  11 - 1 6
ATOM    960   CG   GLU   136 20.762   25.772   41.718 1.000 17.80
ANISOU  960   CG   GLU   136 2036      1714      3014   -286  -169 1 1 0
ATOM    961   CD   GLU   136 21.534   26.269   40.513 1.000 20.92
ANISOU  961   CD   GLU   136 2174      2273      3503   -343   70 4 6 9
ATOM    962   OE1  GLU   136 22.742   25.987   40.454 1.000 24.97
ANISOU  962   OE1  GLU   136 2116      2434      4938   -494   531  2 1 9
ATOM    963   OE2  GLU   136 21.022   27.037   39.672 1.000 24.77
ANISOU  963   OE2  GLU   136 2975      2618      3817   -708  -133 1 0 2 9
ATOM    964   N    VAL   137 20.262   21.172   41.450 1.000 15.34
ANISOU  964   N    VAL   137 1681      1696      2453   -108  -287 1 1 3
ATOM    965   CA   VAL   137 20.568   19.750   41.647 1.000 15.92
ANISOU  965   CA   VAL   137 1755      1802      2493     83  -4 2 1 0
ATOM    966   C    VAL   137 20.926   19.086   40.326 1.000 15.86
ANISOU  966   C    VAL   137 1604      1869      2555    -38   -35  6 6
ATOM    967   O    VAL   137 21.905   18.308   40.174 1.000 16.70
ANISOU  967   O    VAL   137 1617      2118      2609     72  -151 - 9 0
ATOM    968   CB   VAL   137 19.358   18.990   42.283 1.000 15.35
ANISOU  968   CB   VAL   137 1729      1663      2440      8   -29 5
ATOM    969   CG1  VAL   137 19.607   17.478   42.176 1.000 16.93
ANISOU  969   CG1  VAL   137 1521      1689      3223    160   -345 9 6
ATOM    970   CG2  VAL   137 19.144   19.420   43.724 1.000 15.43
ANISOU  970   CG2  VAL   137 1529      2090      2245    -53   -277 1 8 5
ATOM    971   N    LEU   138 20.149   19.407   39.284 1.000 15.52
ANISOU  971   N    LEU   138 1625      1735      2535   -105   -61  1 0 9
ATOM    972   CA   LEU   138 20.378   18.881   37.936 1.000 15.74
ANISOU  972   CA   LEU   138 1576      1862      2543    -71   15 5 1
ATOM    973   C    LEU   138 21.721   19.396   37.406 1.000 17.42
ANISOU  973   C    LEU   138 1588      2119      2912    -87   162  - 4 5
ATOM    974   O    LEU   138 22.503   18.609   36.846 1.000 19.13
ANISOU  974   O    LEU   138 1878      2406      2985    186   317  6 2
ATOM    975   CB   LEU   138 19.211   19.248   36.996 1.000 14.70
ANISOU  975   CB   LEU   138 1592      1642      2349    -50   141  1 9 0
ATOM    976   CG   LEU   138 17.883   18.541   37.375 1.000 14.38
ANISOU  976   CG   LEU   138 1657      1409      2399    -44   -4 2 8 8
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ATOM     977  CD1 LEU   138 16.774  19.122  36.491 1.000 16.13
ANISOU   977  CD1 LEU   138 1743    1848    2539    128   -218 168
ATOM     978  CD2 LEU   138 17.975  17.027  37.156 1.000 17.48
ANISOU   978  CD2 LEU   138 2185    1435    3021    -107  -480 287
ATOM     979  N   ARG   139 21.963  20.708  37.548 1.000 17.44
ANISOU   979  N   ARG   139 1797    2157    2674    -319  238  192
ATOM     980  CA  ARG   139 23.189  21.319  36.996 1.000 19.06
ANISOU   980  CA  ARG   139 2043    2462    2735    -366  482  376
ATOM     981  C   ARG   139 24.419  20.734  37.685 1.000 19.72
ANISOU   981  C   ARG   139 1797    2600    3097    -518  482  376
ATOM     982  O   ARG   139 25.461  20.432  37.094 1.000 20.70
ANISOU   982  O   ARG   139 2046    2469    3350    -288  607  195
ATOM     983  CB  ARG   139 23.152  22.850  37.101 1.000 24.54
ANISOU   983  CB  ARG   139 2525    2403    4396    -402  951  690
ATOM     984  CG  ARG   139 23.886  23.665  36.073 1.000 36.05
ANISOU   984  CG  ARG   139 6517    2967    4212    -2176 1609 140
ATOM     985  CD  ARG   139 23.852  25.148  36.443 1.000 44.95
ANISOU   985  CD  ARG   139 7459    1902    7716    -242  -1324 1930
ATOM     986  NE  ARG   139 22.525  25.727  36.547 1.000 43.27
ANISOU   986  NE  ARG   139 6637    3846    5959    -828  -2173 -698
ATOM     987  CZ  ARG   139 21.821  26.330  35.605 1.000 41.34
ANISOU   987  CZ  ARG   139 5939    4102    5666    497   645  1140
ATOM     988  NH1 ARG   139 22.308  26.436  34.376 1.000 44.01
ANISOU   988  NH1 ARG   139 6564    4146    6011    550   1393 336
ATOM     989  NH2 ARG   139 20.614  26.837  35.833 1.000 45.75
ANISOU   989  NH2 ARG   139 6162    4618    6602    537   1938 2405
ATOM     990  N   ALA   140 24.357  20.566  39.009 1.000 18.77
ANISOU   990  N   ALA   140 1742    2387    3003    -255  145  69
ATOM     991  CA  ALA   140 25.532  20.169  39.773 1.000 19.53
ANISOU   991  CA  ALA   140 1583    2641    3197    -28   38   -668
ATOM     992  C   ALA   140 25.932  18.732  39.490 1.000 18.96
ANISOU   992  C   ALA   140 2018    2342    2843    -67   76   -103
ATOM     993  O   ALA   140 27.109  18.335  39.626 1.000 21.36
ANISOU   993  O   ALA   140 1900    2436    3778    -2    472  -80
ATOM     994  CB  ALA   140 25.273  20.345  41.275 1.000 19.74
ANISOU   994  CB  ALA   140 1824    2592    3084    35    0    -360
ATOM     995  N   THR   141 24.958  17.943  39.062 1.000 20.32
ANISOU   995  N   THR   141 2014    2209    3498    -115  305  -138
ATOM     996  CA  THR   141 25.151  16.530  38.717 1.000 17.15
ANISOU   996  CA  THR   141 1870    2039    2609    61    51   218
ATOM     997  C   THR   141 25.269  16.278  37.208 1.000 17.44
ANISOU   997  C   THR   141 1492    2443    2693    21    278  199
ATOM     998  O   THR   141 25.343  15.106  36.792 1.000 19.24
ANISOU   998  O   THR   141 1871    2623    2814    63    579  -63
ATOM     999  CB  THR   141 24.048  15.629  39.290 1.000 16.79
ANISOU   999  CB  THR   141 1708    2261    2410    83    164  3 1
ATOM    1000  OG1 THR   141 22.788  16.012  38.710 1.000 17.18
ANISOU  1000  OG1 THR   141 1894    2235    2399    -101  -53  518
ATOM    1001  CG2 THR   141 23.982  15.734  40.807 1.000 17.83
ANISOU  1001  CG2 THR   141 1521    2878    2377    164   -43  2 0
ATOM    1002  N   GLY   142 25.361  17.301  36.381 1.000 19.69
ANISOU  1002  N   GLY   142 2091    2789    2603    -708  302  297
ATOM    1003  CA  GLY   142 25.517  17.123  34.923 1.000 19.08
ANISOU  1003  CA  GLY   142 1878    2819    2551    128   -163 255
ATOM    1004  C   GLY   142 24.284  16.441  34.313 1.000 18.75
ANISOU  1004  C   GLY   142 1972    2410    2744    0     252  -117
ATOM    1005  O   GLY   142 24.443  15.755  33.315 1.000 22.41
ANISOU  1005  O   GLY   142 2432    2681    3403    -161  571  -680
ATOM    1006  N   THR   143 23.093  16.650  34.854 1.000 17.28
ANISOU  1006  N   THR   143 1895    2002    2667    67    300  244
ATOM    1007  CA  THR   143 21.909  15.932  34.393 1.000 16.88
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ANISOU 1007 CA  THR  143 1953     2006     2456     164    332   6 6
ATOM   1008 C   THR  143 20.998   16.660   33.432 1.000 17.02
ANISOU 1008 C   THR  143 2149     1795     2521     82 196 1 1 7
ATOM   1009 O   THR  143 20.457   17.713   33.764 1.000 20.30
ANISOU 1009 O   THR  143 2795     1815     3103     344    12 - 2 8
ATOM   1010 CB  THR  143 21.085   15.490   35.623 1.000 16.40
ANISOU 1010 CB  THR  143 1755     2329     2148     -37    95 - 4 4
ATOM   1011 OG1 THR  143 21.922   14.692   36.479 1.000 17.82
ANISOU 1011 OG1 THR  143 2009     2075     2688     -109   39 3 3 7
ATOM   1012 CG2 THR  143 19.887   14.621   35.270 1.000 19.51
ANISOU 1012 CG2 THR  143 1957     2290     3167     -192  -94   1 0 0
ATOM   1013 N   GLU  144 20.742   16.070   32.248 1.000 18.79
ANISOU 1013 N   GLU  144 2138     2203     2800     47 12 - 1 2 1
ATOM   1014 CA  GLU  144 19.729   16.573   31.334 1.000 20.13
ANISOU 1014 CA  GLU  144 2202     2696     2750     -292   -41   3 1 6
ATOM   1015 C   GLU  144 18.637   15.506   31.254 1.000 19.18
ANISOU 1015 C   GLU  144 2255     2614     2418     -292   230 - 1 3 1
ATOM   1016 O   GLU  144 18.827   14.438   30.665 1.000 21.46
ANISOU 1016 O   GLU  144 2268     2442     3446     19 649 - 8 8
ATOM   1017 CB  AGLU 144 20.250   17.061   30.006 0.753 29.50
ANISOU 1017 CB  AGLU 144 3376     4266     3566     -855   206   1 5 0 1
ATOM   1018 CG  AGLU 144 20.195   18.567   29.741 0.753 36.54
ANISOU 1018 CG  AGLU 144 6059     3913     3913     -1728  1769  7 9 5
ATOM   1019 CD  AGLU 144 21.242   19.411   30.426 0.753 33.13
ANISOU 1019 CD  AGLU 144 4189     3432     4966     104    744   8 8 4
ATOM   1020 OE1AGLU 144 21.079   19.690   31.641 0.753 51.91
ANISOU 1020 OE1AGLU 144 3684     11101    4940     -868   -202 -590
ATOM   1021 OE2AGLU 144 -22.207  19.910   29.807 0.753 50.79
ANISOU 1021 OE2AGLU 144 7949     3695     7653     -3071  3099 -1249
ATOM   1022 CB  BGLU 144 20.372   16.724   29.951 0.247 18.36
ANISOU 1022 CB  BGLU 144 868 3091     3016     334    16 2 6 2
ATOM   1023 CG  BGLU 144 21.214   17.988   29.779 0.247 23.54
ANISOU 1023 CG  BGLU 144 1301     3586     4056     -38    595   5 5 8
ATOM   1024 CD  BGLU 144 21.150   18.468   28.336 0.247 33.24
ANISOU 1024 CD  BGLU 144 3589     3975     5064     438    -20   2 0 3 1
ATOM   1025 OE1BGLU 144 20.417   17.818   27.557 0.247 28.68
ANISOU 1025 OE1BGLU 144 3222     4813     2861     389    1729 1 2 8 0
ATOM   1026 OE2BGLU 144 21.814   19.464   27.990 0.247 35.35
ANISOU 1026 OE2BGLU 144 3176     5148     5108     35 1752   1 5 1 6
ATOM   1027 N   PRO  145 17.508   15.724   31.911 1.000 17.11
ANISOU 1027 N   PRO  145 2132     1825     2543     68 62 1 5 8
ATOM   1028 CA  PRO  145 16.396   14.781   31.846 1.000 17.41
ANISOU 1028 CA  PRO  145 2290     1942     2384     -73    400   1 2
ATOM   1029 C   PRO  145 15.966   14.545   30.406 1.000 17.94
ANISOU 1029 C   PRO  145 2386     1955     2475     -116   292 - 1 0 4
ATOM   1030 O   PRO  145 16.068   15.439   29.557 1.000 18.26
ANISOU 1030 O   PRO  145 2271     2196     2472     -272   170   4 5
ATOM   1031 CB  PRO  145 15.250   15.493   32.594 1.000 17.07
ANISOU 1031 CB  PRO  145 2181     1771     2534     35 133 - 1 4 3
ATOM   1032 CG  PRO  145 15.950   16.504   33.464 1.000 17.11
ANISOU 1032 CG  PRO  145 2341     1841     2319     23 -49 - 2 4
ATOM   1033 CD  PRO  145 17.131   16.977   32.649 1.000 17.54
ANISOU 1033 CD  PRO  145 2178     1601     2884     178    -88   3 0 3
ATOM   1034 N   ASP  146 15.490   13.346   30.104 1.000 18.15
ANISOU 1034 N   ASP  146 2140     1965     2790     -60    321 - 1 5 2
ATOM   1035 CA  ASP  146 14.909   13.121   28.775 1.000 18.43
ANISOU 1035 CA  ASP  146 2487     1664     2853     -329   310 - 1 5 6
ATOM   1036 C   ASP  146 13.809   14.154   28.566 1.000 18.07
ANISOU 1036 C   ASP  146 2824     1979     2064     -31    208 - 3 0 9
ATOM   1037 O   ASP  146 12.959   14.333   29.422 1.000 18.29
ANISOU 1037 O   ASP  146 2491     2173     2287     -168   203 - 2 3 0
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ATOM    1038 CB  ASP   146 14.221  11.735  28.717 1.000 23.50
ANISOU  1038 CB  ASP   146 3489    1671    3769   -653   908  -665
ATOM    1039 CG  ASP   146 13.636  11.508  27.334 1.000 34.15
ANISOU  1039 CG  ASP   146 4070    4205    4700   -1004  361  -2386
ATOM    1040 OD1 ASP   146 12.393  11.521  27.138 1.000 44.73
ANISOU  1040 OD1 ASP   146 3971    9175    3849   -2156  683   378
ATOM    1041 OD2 ASP   146 14.421  11.229  26.397 1.000 44.78
ANISOU  1041 OD2 ASP   146 4342    8626    4046   -813   289  -2326
ATOM    1042 N   GLY   147 13.901  14.854  27.450 1.000 19.28
ANISOU  1042 N   GLY   147 2622    2331    2374   -635.  -72   113
ATOM    1043 CA  GLY   147 12.916  15.878  27.171 1.000 18.58
ANISOU  1043 CA  GLY   147 2463    2607    1991   -550   -234 -36
ATOM    1044 C   GLY   147 13.355  17.262  27.590 1.000 18.25
ANISOU  1044 C   GLY   147 2511    2432    1993   -335   -138 6 4
ATOM    1045 O   GLY   147 12.586  18.183  27.289 1.000 20.74
ANISOU  1045 O   GLY   147 2469    2739    2673   -182   -144 2 0 5
ATOM    1046 N   GLY   148 14.494  17.357  28.286 1.000 17.38
ANISOU  1046 N   GLY   148 2237    2174    2191   -462   -42  -90
ATOM    1047 CA  GLY   148 15.027  18.658  28.672 1.000 16.72
ANISOU  1047 CA  GLY   148 2308    1789    2255   39  -82  -77
ATOM    1048 C   GLY   148 14.653  19.076  30.085 1.000 13.94
ANISOU  1048 C   GLY   148 1517    1645    2135   77 -201  117
ATOM    1049 O   GLY   148 13.637  18.634  30.694 1.000 16.29
ANISOU  1049 O   GLY   148 1839    1863    2487   -151   -77  285
ATOM    1050 N   VAL   149 15.431  20.003  30.641 1.000 14.93
ANISOU  1050 N   VAL   149 1624    1780    2269   1   -193  -14
ATOM    1051 CA  VAL   149 15.275  20.509  32.017 1.000 14.16
ANISOU  1051 CA  VAL   149 1647    1511    2222   92 -195  8 6
ATOM    1052 C   VAL   149 13.958  21.218  32.235 1.000 14.37
ANISOU  1052 C   VAL   149 1735    1044    2682   -39   83 188
ATOM    1053 O   VAL   149 13.203  20.970  33.163 1.000 14.63
ANISOU  1053 O   VAL   149 1653    1517    2390   -160   -40  1 0 7
ATOM    1054 CB  VAL   149 16.439  21.410  32.417 1.000 14.02
ANISOU  1054 CB  VAL   149 1745    1530    2052   -112   -57  2 7 0
ATOM    1055 CG1 VAL   149 16.228  22.101  33.752 1.000 16.48
ANISOU  1055 CG1 VAL   149 2360    1709    2193   -153   -305 8 7
ATOM    1056 CG2 VAL   149 17.733  20.614  32.482 1.000 17.85
ANISOU  1056 CG2 VAL   149 1618    1937    3226   -59   -52  4 41
ATOM    1057 N   GLU   150 13.634  22.199  31.371 1.000 15.26
ANISOU  1057 N   GLU   150 1759    1328    2711   186   36 267
ATOM    1058 CA  GLU   150 12.471  23.028  31.687 1.000 14.91
ANISOU  1058 CA  GLU   150 1591    1434    2640   93 13 415
ATOM    1059 C   GLU   150 11.182  22.237  31.553 1.000 16.66
ANISOU  1059 C   GLU   150 1680    1980    2670   -197   113  199
ATOM    1060 O   GLU   150 10.259  22.408  32.379 1.000 15.89
ANISOU  1060 O   GLU   150 1697    1761    2578   29 79 580
ATOM    1061 CB  GLU   150 12.531  24.305  30.874 1.000 17.07
ANISOU  1061 CB  GLU   150 1925    1337    3223   254   189  5 1 3
ATOM    1062 CG  GLU   150 13.761  25.167  31.220 1.000 19.00
ANISOU  1062 CG  GLU   150 2483    1212    3523   -65   -95  4 65
ATOM    1063 CD  GLU   150 13.810  25.624  32.658 1.000 20.32
ANISOU  1063 CD  GLU   150 2444    1746    3532   -130   -24  4 54
ATOM    1064 OE1 GLU   150 12.781  25.749  33.377 1.000 20.88
ANISOU  1064 OE1 GLU   150 2558    1728    3648   29 58 396
ATOM    1065 OE2 GLU   150 14.913  25.946  33.161 1.000 21.77
ANISOU  1065 OE2 GLU   150 2549    2030    3693   -165   -202 273
ATOM    1066 N   ALA   151 11.050  21.288  30.603 1.000 14.98
ANISOU  1066 N   ALA   151 1649    1710    2334   37 -307  5 51
ATOM    1067 CA  ALA   151 9.834   20.475  30.543 1.000 15.79
ANISOU  1067 CA  ALA   151 1820    2045    2136   -173   -198 408
ATOM    1068 C   ALA   151 9.748   19.531  31.724 1.000 15.38
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- 48 -

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ANISOU 1068 C    ALA 151 1674      1953      2216      165    181   4 4 2
ATOM   1069 O    ALA 151 8.642     19.186    32.184 1.000 16.51
ANISOU 1069 O    ALA 151 1778      1852      2643     -152    110   3 3 0
ATOM   1070 CB   ALA 151 9.823     19.663    29.236 1.000 18.05
ANISOU 1070 CB   ALA 151 1910      2811      2139     -275   -316 166
ATOM   1071 N    PHE 152 10.893    19.135    32.306 1.000 14.25
ANISOU 1071 N    PHE 152 1858      1132      2423      10   -107   2 6 3
ATOM   1072 CA   PHE 152 10.893    18.285    33.493 1.000 13.42
ANISOU 1072 CA   PHE 152 1457      1291      2353     -102    -34   3 0 4
ATOM   1073 C    PHE 152 10.406    19.056    34.695 1.000 13.93
ANISOU 1073 C    PHE 152 1481      1400      2412     -43    -165 196
ATOM   1074 O    PHE 152 9.679     18.495    35.558 1.000 14.50
ANISOU 1074 O    PHE 152 1590      1482      2438     -85     25   2 6
ATOM   1075 CB   PHE 152 12.309    17.744    33.728 1.000 13.95
ANISOU 1075 CB   PHE 152 1504      1547      2248     -29    111   4 6 3
ATOM   1076 CG   PHE 152 12.475    16.966    35.011 1.000 14.04
ANISOU 1076 CG   PHE 152 1747      1386      2200      88    -58 247
ATOM   1077 CD1  PHE 152 12.032    15.653    35.076 1.000 13.90
ANISOU 1077 CD1  PHE 152 1906      1306      2069      165    -36   2 8 1
ATOM   1078 CD2  PHE 152 13.094    17.499    36.127 1.000 15.67
ANISOU 1078 CD2  PHE 152 1927      1770      2259     -155   -115 233
ATOM   1079 CE1  PHE 152 12.213    14.949    36.263 1.000 14.06
ANISOU 1079 CE1  PHE 152 1669      1507      2165      182    -282 347
ATOM   1080 CE2  PHE 152 13.323    16.799    37.276 1.000 14.83
ANISOU 1080 CE2  PHE 152 1724      1671      2240      35    -112   1 6 5
ATOM   1081 CZ   PHE 152 12.861    15.522    37.361 1.000 14.86
ANISOU 1081 CZ   PHE 152 1994      1734      1916     -162     99 113
ATOM   1082 N    LEU 153 10.789    20.324    34.789 1.000 15.25
ANISOU 1082 N    LEU 153 1742      1355      2696      58    110 1 5 4
ATOM   1083 CA   LEU 153 10.454    21.151    35.939 1.000 14.65
ANISOU 1083 CA   LEU 153 1783      1429      2354     -66     16   2 0 3
ATOM   1084 C    LEU 153 9.082     21.791    35.877 1.000 14.47
ANISOU 1084 C    LEU 153 1732      1402      2362     -80     76   1 1
ATOM   1085 O    LEU 153 8.581     22.216    36.953 1.000 15.82
ANISOU 1085 O    LEU 153 1940      1454      2616     -313    312   - 1 5 7
ATOM   1086 CB   LEU 153 11.537    22.224    36.165 1.000 16.53
ANISOU 1086 CB   LEU 153 1626      1451      3205     -23     269   - 8 3
ATOM   1087 CG   LEU 153 12.914    21.685    36.514 1.000 15.90
ANISOU 1087 CG   LEU 153 1893      2013      2135     -33    -186   - 3 6
ATOM   1088 CD1  LEU 153 13.922    22.829    36.614 1.000 18.41
ANISOU 1088 CD1  LEU 153 1732      2473      2791     -156     80   - 8 7 6
ATOM   1089 CD2  LEU 153 12.863    20.883    37.794 1.000 21.76
ANISOU 1089 CD2  LEU 153 3083      3182      2005      365     261   1 9 3
ATOM   1090 N    ASP 154 8.473     21.866    34.708 1.000 14.41
ANISOU 1090 N    ASP 154 1768      1181      2525     -25     -8 2 9 3
ATOM   1091 CA   ASP 154 7.092     22.373    34.553 1.000 15.90
ANISOU 1091 CA   ASP 154 1665      1615      2760     -195     27 7 6 9
ATOM   1092 C    ASP 154 6.216     21.161    34.814 1.000 14.66
ANISOU 1092 C    ASP 154 1859      1304      2409     -92     143   5 1 5
ATOM   1093 O    ASP 154 5.995     20.368    33.889 1.000 17.30
ANISOU 1093 O    ASP 154 2561      1455      2557     -29     314   2 3 4
ATOM   1094 CB   ASP 154 6.923     22.909    33.125 1.000 18.59
ANISOU 1094 CB   ASP 154 1905      2077      3081      124     269   1 3 1 7
ATOM   1095 CG   ASP 154 5.461     23.157    32.768 1.000 19.87
ANISOU 1095 CG   ASP 154 2029      2531      2990      226     129   1 4 3 6
ATOM   1096 OD1  ASP 154 4.561     23.253    33.639 1.000 19.68
ANISOU 1096 OD1  ASP 154 1949      2209      3318      92 221 496
ATOM   1097 OD2  ASP 154 5.207     23.189    31.554 1.000 23.73
ANISOU 1097 OD2  ASP 154 2512      3475      3029      246    -137 6 5 3
ATOM   1098 N    CYS 155 5.831     20.904    36.070 1.000 14.25
ANISOU 1098 N    CYS 155 1708      1365      2342     -101     -62   5 4 6
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ATOM    1099 CA  CYS   155 5.418    19.569    36.468 1.000 13.45
ANISOU  1099 CA  CYS   155 1608     1346      2158   -191  4   458
ATOM    1100 C   CYS   155 4.157    19.574    37.302 1.000 12.49
ANISOU  1100 C   CYS   155 1644     1331      1772   -200  -148 6 2
ATOM    1101 O   CYS   155 3.224    20.303    36.941 1.000 14.55
ANISOU  1101 O   CYS   155 1633     1492      2402   -122  -111 4 42
ATOM    1102 CB  CYS   155 6.664    18.872    37.098 1.000 14.37
ANISOU  1102 CB  CYS   155 1907     1366      2186   122   -137 2 11
ATOM    1103 SG  CYS   155 7.265    19.595    38.641 1.000 14.99
ANISOU  1103 SG  CYS   155 1561     1821      2315   -74   -98  1 82
ATOM    1104 N   GLU   156 4.060    18.706    38.316 1.000 12.89
ANISOU  1104 N   GLU   156 1575     1379      1945   -130  29 1 94
ATOM    1105 CA  GLU   156 2.788    18.447    39.029 1.000 12.98
ANISOU  1105 CA  GLU   156 1508     1311      2114   -210  21 1 40
ATOM    1106 C   GLU   156 2.987    18.676    40.510 1.000 12.34
ANISOU  1106 C   GLU   156 1414     1198      2078   102   24 2 04
ATOM    1107 O   GLU   156 2.828    17.757    41.289 1.000 14.89
ANISOU  1107 O   GLU   156 1875     1425      2359   -15   -54  4 42
ATOM    1108 CB  GLU   156 2.278    17.047    38.678 1.000 14.48
ANISOU  1108 CB  GLU   156 1968     1323      2213   -279  120 8 7
ATOM    1109 CG  GLU   156 1.855    17.038    37.227 1.000 14.86
ANISOU  1109 CG  GLU   156 1894     1526      2227   -120  95  -152
ATOM    1110 CD  GLU   156 0.523    17.687    36.932 1.000 17.10
ANISOU  1110 CD  GLU   156 2091     1976      2431   44 -4 1 44
ATOM    1111 OE1 GLU   156 -0.204   17.967    37.886 1.000 17.98
ANISOU  1111 OE1 GLU   156 1811     2155      2866   -35   10  -355
ATOM    1112 OE2 GLU   156 0.214    17.990    35.759 1.000 20.99
ANISOU  1112 OE2 GLU   156 2854     2419      2704   -386  -516 5 62
ATOM    1113 N   PRO   157 3.292    19.893    40.958 1.000 12.09
ANISOU  1113 N   PRO   157 1314     1347      1934   12 -48 2 49
ATOM    1114 CA  PRO   157 3.576    20.121    42.391 1.000 13.28
ANISOU  1114 CA  PRO   157 1425     1696      1924   -68   117  1 47
ATOM    1115 C   PRO   157 2.330    19.996    43.248 1.000 12.87
ANISOU  1115 C   PRO   157 1236     1737      1916   -214  -47  1 24
ATOM    1116 O   PRO   157 1.192    20.190    42.744 1.000 13.73
ANISOU  1116 O   PRO   157 1286     1717      2214   -190  -17  1 43
ATOM    1117 CB  PRO   157 4.061    21.580    42.407 1.000 13.94
ANISOU  1117 CB  PRO   157 1518     1729      2047   -289  -166 2 47
ATOM    1118 CG  PRO   157 3.363    22.184    41.226 1.000 13.06
ANISOU  1118 CG  PRO   157 1558     1518      1887   -32   -158 - 88
ATOM    1119 CD  PRO   157 3.494    21.128    40.167 1.000 12.03
ANISOU  1119 CD  PRO   157 1521     1081      1968   -2 -7 1 21
ATOM    1120 N   LEU   158 2.542    19.738    44.526 1.000 13.02
ANISOU  1120 N   LEU   158 1554     1493      1899   -124  148  7 3
ATOM    1121 CA  LEU   158 1.438    19.699    45.496 1.000 12.72
ANISOU  1121 CA  LEU   158 1465     1552      1815   -126  -14  3 6
ATOM    1122 C   LEU   158 1.927    20.389    46.772 1.000 12.90
ANISOU  1122 C   LEU   158 1230     1715      1957   -27   -29  - 80
ATOM    1123 O   LEU   158 2.975    19.977    47.289 1.000 14.06
ANISOU  1123 O   LEU   158 1374     1666      2304   59 -257  - 236
ATOM    1124 CB  LEU   158 1.046    18.244    45.815 1.000 13.58
ANISOU  1124 CB  LEU   158 1673     1590      1896   -213  57 171
ATOM    1125 CG  LEU   158 0.044    18.030    46.945 1.000 14.84
ANISOU  1125 CG  LEU   158 1471     1774      2396   -16   262  2 42
ATOM    1126 CD1 LEU   158 -1.333   18.635    46.671 1.000 16.96
ANISOU  1126 CD1 LEU   158 1485     2196      2764   5  -148  - 401
ATOM    1127 CD2 LEU   158 -0.142   16.539    47.161 1.000 14.98
ANISOU  1127 CD2 LEU   158 1976     1820      1897   -390  171  7 9
ATOM    1128 N   LEU   159 1.139    21.306    47.283 1.000 13.44
ANISOU  1128 N   LEU   159 1509     1434      2165   43 -87 -119
ATOM    1129 CA  LEU   159 1.443    21.963    48.571 1.000 13.39
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ANISOU 1129 CA  LEU  159 1438    1555    2095    -36   -80   -91
ATOM   1130 C   LEU  159 0.419   21.494  49.602 1.000 14.49
ANISOU 1130 C   LEU  159 1336    2034    2135    -152  -20S  -38
ATOM   1131 O   LEU  159 -0.790  21.596  49.419 1.000 15.09
ANISOU 1131 O   LEU  159 1414    1999    2319    90   -131   9 0
ATOM   1132 CB  LEU  159 1.390   23.466  48.394 1.000 15.28
ANISOU 1132 CB  LEU  159 1720    1447    2639    55   -325  -197
ATOM   1133 CG  LEU  159 1.484   24.320  49.669 1.000 17.11
ANISOU 1133 CG  LEU  159 2146    1689    2665    363  -332 -343
ATOM   1134 CD1 LEU  159 2.775   24.114  50.453 1.000 18.70
ANISOU 1134 CD1 LEU  159 2276    1759    3070    379  -687 -540
ATOM   1135 CD2 LEU  159 1.312   25.801  49.291 1.000 21.00
ANISOU 1135 CD2 LEU  159 2918    1535    3526    439  -692 -382
ATOM   1136 N   ARG  160 0.916   21.107  50.774 1.000 14.37
ANISOU 1136 N   ARG  160 1688    1709    2063    -101 -186 4 7
ATOM   1137 CA  ARG  160 0.055   20.747  51.901 1.000 15.61
ANISOU 1137 CA  ARG  160 1726    1990    2217    -64   90 -1⊥8
ATOM   1138 C   ARG  160 0.480   21.501  53.155 1.000 15.40
ANISOU 1138 C   ARG  160 1557    2158    2135    -34  -46  -3 8
ATOM   1139 O   ARG  160 1.639   21.401  53.576 1.000 16.32
ANISOU 1139 O   ARG  160 1528    2508    2164    63 41 -104
ATOM   1140 CB  ARG  160 0.048   19.263  52.227 1.000 16.13
ANISOU 1140 CB  ARG  160 2134    2084    1912    -127  -30  129
ATOM   1141 CG  ARG  160 -0.594  18.410  51.155 1.000 17.17
ANISOU 1141 CG  ARG  160 1963    1934    2628    -140 -212 -6 0
ATOM   1142 CD  ARG  160 -0.672  16.959  51.627 1.000 18.16
ANISOU 1142 CD  ARG  160 2767    1965    2166    125  -330 -3 5
ATOM   1143 NE  ARG  160 -1.382  16.102  50.682 1.000 18.11
ANISOU 1143 NE  ARG  160 2408    1775    2699    -56  -308 2 0
ATOM   1144 CZ  ARG  160 -1.221  14.789  50.581 1.000 16.76
ANISOU 1144 CZ  ARG  160 2191    1748    2428    -97   55 174
ATOM   1145 NH1 ARG  160 -0.326  14.192  51.374 1.000 20.55
ANISOU 1145 NH1 ARG  160 2306    2012    3491    -26  -457 305
ATOM   1146 NH2 ARG  160 -1.908  14.095  49.689 1.000 19.23
ANISOU 1146 NH2 ARG  160 2502    2031    2774    181  -147 -3 38
ATOM   1147 N   PHE  161 -0.469  22.257  53.755 1.000 15.36
ANISOU 1147 N   PHE  161 1604    2120    2111    -37  -63  -1 28
ATOM   1148 CA  PHE  161 -0.209  22.975  54.999 1.000 16.25
ANISOU 1148 CA  PHE  161 2173    1774    2227    -71  -187 -8 9
ATOM   1149 C   PHE  161 -1.030  22.236  56.069 1.000 16.98
ANISOU 1149 C   PHE  161 1980    2432    2041    -217 -161 -162
ATOM   1150 O   PHE  161 -2.248  22.113  55.948 1.000 20.38
ANISOU 1150 O   PHE  161 1981    3291    2473    -190 -191 -7 2
ATOM   1151 CB  PHE  161 -0.683  24.431  54.862 1.000 19.76
ANISOU 1151 CB  PHE  161 2065    1903    3540    167   355 -198
ATOM   1152 CG  PHE  161 -0.379  25.259  56.109 1.000 23.61
ANISOU 1152 CG  PHE  161 3026    1905    4041    836  -59  -591
ATOM   1153 CD1 PHE  161 -1.194  25.304  57.228 1.000 28.25
ANISOU 1153 CD1 PHE  161 3992    2474    4268    1077  369  -1253
ATOM   1154 CD2 PHE  161 0.807   25.978  56.141 1.000 26.62
ANISOU 1154 CD2 PHE  161 4015    2483    3616    -130  -927 -106
ATOM   1155 CE1 PHE  161 -0.850  25.992  58.383 1.000 35.29
ANISOU 1155 CE1 PHE  161 6873    2097    4437    1538  -135 -1399
ATOM   1156 CE2 PHE  161 1.153   26.723  57.258 1.000 33.63
ANISOU 1156 CE2 PHE  161 4643    3240    4894    1263  -2085 -1268
ATOM   1157 CZ  PHE  161 0.320   26.726  53.363 1.000 36.44
ANISOU 1157 CZ  PHE  161 6071    4282    3493    1455  -2477 -1044
ATOM   1158 N   ARG  162 -0.358  21.767  57.130 1.000 17.59
ANISOU 1158 N   ARG  162 2095    2487    2103    -118  -135 -6 9
ATOM   1159 CA  ARG  162 -1.072  21.078  58.199 1.000 18.27
ANISOU 1159 CA  ARG  162 2769    2414    1758    6   178 -378
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ATOM    1160 C    ARG   162  -0.880  21.758  59.553 1.000 20.16
ANISOU  1160 C    ARG   162  2110    3341    2210    -36    41  -960
ATOM    1161 O    ARG   162   0.217  22.160  59.893 1.000 19.61
ANISOU  1161 O    ARG   162  2257    2993    2201   -194   -73  -359
ATOM    1162 CB   ARG   162  -0.580  19.640  58.356 1.000 20.81
ANISOU  1162 CB   ARG   162  2958    2275    2675   -129     6  -169
ATOM    1163 CG   ARG   162  -0.843  18.724  57.166 1.000 19.90
ANISOU  1163 CG   ARG   162  3044    2073    2443   -112   254   -38
ATOM    1164 CD   ARG   162  -0.182  17.383  57.393 1.000 28.02
ANISOU  1164 CD   ARG   162  5599    2038    3010    381   -14   114
ATOM    1165 NE   ARG   162  -0.369  16.420  56.326 1.000 27.74
ANISOU  1165 NE   ARG   162  4151    2294    4097    555  -687  -434
ATOM    1166 CZ   ARG   162  -1.278  15.445  56.370 1.000 31.11
ANISOU  1166 CZ   ARG   162  2560    3729    5531    470  -350 -1152
ATOM    1167 NH1  ARG   162  -2.092  15.324  57.403 1.000 42.97
ANISOU  1167 NH1  ARG   162  3475    5906    6946   -579  1019 -2492
ATOM    1168 NH2  ARG   162  -1.329  14.603  55.353 1.000 29.64
ANISOU  1168 NH2  ARG   162  3066    2738    5458    120  -143  -708
ATOM    1169 N    TYR   163  -1.956  21.780  60.311 1.000 19.52
ANISOU  1169 N    TYR   163  2394    2901    2120    147   263  -763
ATOM    1170 CA   TYR   163  -1.943  22.102  61.732 1.000 22.74
ANISOU  1170 CA   TYR   163  3312    3107    2219    369   302  -878
ATOM    1171 C    TYR   163  -2.037  20.800  62.536 1.000 24.20
ANISOU  1171 C    TYR   163  2802    3901    2492   -222   253  -189
ATOM    1172 O    TYR   163  -2.992  20.049  62.274 1.000 28.02
ANISOU  1172 O    TYR   163  2305    4409    3934   -202  -126  399
ATOM    1173 CB   TYR   163  -3.198  22.912  62.114 1.000 28.98
ANISOU  1173 CB   TYR   163  3861    3231    3920    267  1196 -1783
ATOM    1174 CG   TYR   163  -3.342  22.997  63.623 1.000 25.58
ANISOU  1174 CG   TYR   163  2572    3382    3767    543   749 -1204
ATOM    1175 CD1  TYR   163  -2.458  23.826  64.319 1.000 37.32
ANISOU  1175 CD1  TYR   163  3654    6112    4413   -759   884 -2373
ATOM    1176 CD2  TYR   163  -4.315  22.333  64.345 1.000 29.13
ANISOU  1176 CD2  TYR   163  2622    3994    4452    749  1084  -769
ATOM    1177 CE1  TYR   163  -2.546  23.966  65.702 1.000 38.28
ANISOU  1177 CE1  TYR   163  2905    7138    4503   -454   987 -2740
ATOM    1178 CE2  TYR   163  -4.396  22.431  65.726 1.000 37.36
ANISOU  1178 CE2  TYR   163  3220    6336    4640   -273  1997 -1618
ATOM    1179 CZ   TYR   163  -3.500  23.250  66.393 1.000 49.85
ANISOU  1179 CZ   TYR   163  5272    8795    4872  -1810  1593 -2223
ATOM    1180 OH   TYR   163  -3.595  23.365  67.768 1.000 44.81
ANISOU  1180 OH   TYR   163  5246    7368    4413   -222   270  -496
ATOM    1181 N    PHE   164  -1.098  20.651  63.448 1.000 24.84
ANISOU  1181 N    PHE   164  2905    3368    3164    -89  -125  -361
ATOM    1182 CA   PHE   164  -1.045  19.532  64.370 1.000 28.14
ANISOU  1182 CA   PHE   164  3538    3957    3195    223  -163   -30
ATOM    1183 C    PHE   164  -1.360  20.003  65.787 1.000 26.67
ANISOU  1183 C    PHE   164  2964    3937    3234   -473  -194  -257
ATOM    1184 O    PHE   164  -0.540  20.730  66.342 1.000 31.26
ANISOU  1184 O    PHE   164  3119    4888    3869   -959  -260  -519
ATOM    1185 CB   PHE   164   0.347  18.881  64.396 1.000 27.86
ANISOU  1185 CB   PHE   164  3423    3725    3436     76  -199   -32
ATOM    1186 CG   PHE   164   0.744  18.301  63.052 1.000 26.77
ANISOU  1186 CG   PHE   164  2914    3474    3785   -598    74  -275
ATOM    1187 CD1  PHE   164   1.435  19.093  62.143 1.000 26.16
ANISOU  1187 CD1  PHE   164  2827    3836    3278    135  -615  711
ATOM    1188 CD2  PHE   164   0.414  16.996  62.717 1.000 31.24
ANISOU  1188 CD2  PHE   164  4365    2808    4698    349  -298   -96
ATOM    1189 CE1  PHE   164   1.787  18.609  60.894 1.000 30.09
ANISOU  1189 CE1  PHE   164  3609    5052    2771   -148 -1030  641
ATOM    1190 CE2  PHE   164   0.786  16.501  61.475 1.000 38.25
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ANISOU 1190 CE2 PHE   164 6659      4077      3797     -740  -1363 -612
ATOM   1191 CZ  PHE   164 1.494   17.298    60.588   1.000 32.74
ANISOU 1191 CZ  PHE   164 3189      5078      4172      712   -944 -385
ATOM   1192 N   PRO   165 -2.469  19.609    66.379   1.000 30.62
ANISOU 1192 N   PRO   165 3876      4009      3751    -1371   344 -508
ATOM   1193 CA  PRO   165 -2.670  19.813    67.809   1.000 33.09
ANISOU 1193 CA  PRO   165 3299      5764      3510     -190    80 236
ATOM   1194 C   PRO   165 -1.459  19.408    68.638   1.000 36.32
ANISOU 1194 C   PRO   165 3538      5745      4518      664   -191 -234
ATOM   1195 O   PRO   165 -0.776  18.428    68.371   1.000 32.94
ANISOU 1195 O   PRO   165 4268      4761      3487      220   501 387
ATOM   1196 CB  PRO   165 -3.882  18.929    68.123   1.000 38.44
ANISOU 1196 CB  PRO   165 3807      6924      3873     -765   271 827
ATOM   1197 CG  PRO   165 -4.635  18.842    66.845   1.000 35.82
ANISOU 1197 CG  PRO   165 2595      7020      3995        5   688 -828
ATOM   1198 CD  PRO   165 -3.690  19.170    65.710   1.000 33.90
ANISOU 1198 CD  PRO   165 3192      5919      3770    -1149   194 169
ATOM   1199 N   LEU   178 7.727   7.453     68.180   1.000 64.52
ANISOU 1199 N   LEU   178 12297     5376      6843      278   -218 3721
ATOM   1200 CA  LEU   178 7.629   8.260     66.973   1.000 43.31
ANISOU 1200 CA  LEU   178 10557     2730      3168     -984  -2821 -135
ATOM   1201 C   LEU   178 6.159   8.539     66.662   1.000 47.36
ANISOU 1201 C   LEU   178 9239      3530      5225    -2598  -1186 1204
ATOM   1202 O   LEU   178 5.314   7.659     66.796   1.000 56.53
ANISOU 1202 O   LEU   178 11777     5626      4076    -4835  1265 -602
ATOM   1203 CB  LEU   178 8.222   7.582     65.746   1.000 55.55
ANISOU 1203 CB  LEU   178 11470     3734      5902    -1314  -1197 -1822
ATOM   1204 CG  LEU   178 9.662   7.092     65.774   1.000 62.34
ANISOU 1204 CG  LEU   178 10812     5116      7760    -1971   194 -443
ATOM   1205 CD1 LEU   178 9.916   6.185     64.579   1.000 54.23
ANISOU 1205 CD1 LEU   178 9626      4989      5988     1878  -3799 511
ATOM   1206 CD2 LEU   178 10.633  8.264     65.773   1.000 66.44
ANISOU 1206 CD2 LEU   178 11265     3454      10526   -1170  4090 -516
ATOM   1207 N   ARG   179 5.879   9.751     66.192   1.000 52.90
ANISOU 1207 N   ARG   179 7853      3826      8421      102   1230 1031
ATOM   1208 CA  ARG   179 4.495   10.033    65.807   1.000 51.26
ANISOU 1208 CA  ARG   179 7235      4820      7421     -229   1890 -383
ATOM   1209 C   ARG   179 4.242   9.563     64.383   1.000 55.25
ANISOU 1209 C   ARG   179 7178      6083      7731     -946   2260 -1134
ATOM   1210 O   ARG   179 3.120   9.211     64.021   1.000 58.51
ANISOU 1210 O   ARG   179 7036      7628      7565    -1820  3675 -2851
ATOM   1211 CB  ARG   179 4.180   11.512    66.040   1.000 41.49
ANISOU 1211 CB  ARG   179 6600      4448      4716     -155   1916 1137
ATOM   1212 CG  ARG   179 3.293   11.700    67.277   1.000 43.15
ANISOU 1212 CG  ARG   179 6120      5908      4367       90   1338 530
ATOM   1213 CD  ARG   179 1.888   12.059    66.833   1.000 47.63
ANISOU 1213 CD  ARG   179 6180      7453      4463      195    860 -531
ATOM   1214 NE  ARG   179 1.459   13.367    67.269   1.000 52.00
ANISOU 1214 NE  ARG   179 7384      7834      4539     1669  -1168 -538
ATOM   1215 CZ  ARG   179 1.322   14.470    66.556   1.000 64.81
ANISOU 1215 CZ  ARG   179 10838     8000      5788     1457  -1107 63
ATOM   1216 NH1 ARG   179 1.637   14.518    65.268   1.000 59.74
ANISOU 1216 NH1 ARG   179 9535      8090      5074     3628  -2691 445
ATOM   1217 NH2 ARG   179 0.907   15.606    67.117   1.000 65.83
ANISOU 1217 NH2 ARG   179 10451     9083      5478     4171   -776 1200
ATOM   1218 N   MET   180 5.304   9.501     63.589   1.000 43.96
ANISOU 1218 N   MET   180 5383      3769      7550      705    852 -1245
ATOM   1219 CA  MET   180 5.264   9.035     62.210   1.000 40.44
ANISOU 1219 CA  MET   180 2356      5467      7543     -398    574 -1482
ATOM   1220 C   MET   180 6.552   8.258     61.920   1.000 43.91
ANISOU 1220 C   MET   180 2731      6220      7733       18    320 -2324
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ATOM    1221 O    MET  180  7.629    8.679   62.327 1.000 39.46
ANISOU  1221 O    MET  180  2377     5064    7554   -395   906  -912
ATOM    1222 CB   MET  180  5.129    10.189  61.219 1.000 49.84
ANISOU  1222 CB   MET  180  2749     7966    8223   -452  -1114  7 2
ATOM    1223 CG   MET  180  5.339    9.818   59.757 1.000 62.58
ANISOU  1223 CG   MET  180  7280     8911    7587   -2331 -3353 -5 0 5
ATOM    1224 SD   MET  180  4.622    11.015  58.608 1.000 74.24
ANISOU  1224 SD   MET  180  7480     13510   7216   4918  -262 -9 0 5
ATOM    1225 CE   MET  180  4.501    10.037  57.110 1.000 79.59
ANISOU  1225 CE   MET  180  6119     20000   4120   -1978 1874 -912
ATOM    1226 N    ALA  181  6.376    7.112   61.275 1.000 37.44
ANISOU  1226 N    ALA  181  3523     5646    5055   -271   882  -1132
ATOM    1227 CA   ALA  181  7.407    6.140   60.986 1.000 37.40
ANISOU  1227 CA   ALA  181  3980     3980    6250   -625  2048 461
ATOM    1228 C    ALA  181  8.287    6.591   59.837 1.000 31.49
ANISOU  1228 C    ALA  181  2975     3842    5149   -32    920  956
ATOM    1229 O    ALA  181  7.834    7.393   58.997 1.000 30.77
ANISOU  1229 O    ALA  181  2903     4021    4765   197    -98  164
ATOM    1230 CB   ALA  181  6.727    4.817   60.620 1.000 42.66
ANISOU  1230 CB   ALA  181  4105     4284    7820   -1023 1629 557
ATOM    1231 N    PRO  182  9.541    6.137   59.840 1.000 24.52
ANISOU  1231 N    PRO  182  2782     4237    2296   -240   -76  320
ATOM    1232 CA   PRO  182  10.442   6.667   58.820 1.000 20.55
ANISOU  1232 CA   PRO  182  2612     2870    2326   -335  -117 -6 5
ATOM    1233 C    PRO  182  9.958    6.402   57.408 1.000 19.31
ANISOU  1233 C    PRO  182  2609     2491    2236   -391   48  -8 6
ATOM    1234 O    PRO  182  9.448    5.326   57.080 1.000 21.68
ANISOU  1234 O    PRO  182 2991     2486    2759   -440  -340 -5 5
ATOM    1235 CB   PRO  182  11.768   5.939   59.047 1.000 24.98
ANISOU  1235 CB   PRO  182  2589     3860    3042   -170  -286 153
ATOM    1236 CG   PRO  182  11.681   5.351   60.393 1.000 28.42
ANISOU  1236 CG   PRO  182  3352     3582    3863   656    321  1038
ATOM    1237 CD   PRO  182  10.215   5.210   60.747 1.000 32.21
ANISOU  1237 CD   PRO  182  3333     4905    4000   -826  -390 1785
ATOM    1238 N    HIS  183  10.111   7.414   56.561 1.000 19.27
ANISOU  1238 N    HIS  183  2131     2658    2533   -274  -204 176
ATOM    1239 CA   HIS  183  9.757    7.306   55.144 1.000 18.01
ANISOU  1239 CA   HIS  183  1882     2311    2652   -341  -455 346
ATOM    1240 C    HIS  183  10.749   8.124   54.337 1.000 15.74
ANISOU  1240 C    HIS  183  1964     1560    2456   -75   -352 128
ATOM    1241 O    HIS  183  11.355   9.061   54.868 1.000 18.14
ANISOU  1241 O    HIS  183  2297     2093    2504   -509  -127 -1 3 5
ATOM    1242 CB   HIS  183  8.338    7.781   54.835 1.000 18.66
ANISOU  1242 CB   HIS  183  1970     2173    2945   -136  -243 371
ATOM    1243 CG   HIS  183  8.089    9.120   55.447 1.000 26.67
ANISOU  1243 CG   HIS  183  3100     2751    4281   262    222  -3 0 6
ATOM    1244 ND1  HIS  183  7.884    9.362   56.800 1.000 35.36
ANISOU  1244 ND1  HIS  183  4432     4078    4926   -1190 1466 -1454
ATOM    1245 CD2  HIS  183  8.051    10.311  54.821 1.000 33.00
ANISOU  1245 CD2  HIS  183  4117     2522    5898   1687  -677 -1 7 3
ATOM    1246 CE1  HIS  183  7.739    10.658  56.980 1.000 35.91
ANISOU  1246 CE1  HIS  183  2611     4468    6565   -472  -625 -2616
ATOM    1247 NE2  HIS  183  7.829    11.251  55.798 1.000 40.55
ANISOU  1247 NE2  HIS  183  4375     3417    7614   1821  -1013 -1590
ATOM    1248 N    TYR  184  10.890   7.778   53.061 1.000 15.68
ANISOU  1248 N    TYR  184  1973     1551    2434   -124  -470 107
ATOM    1249 CA   TYR  184  11.605   8.685   52.152 1.000 14.81
ANISOU  1249 CA   TYR  184  1798     1392    2438   147   -312 145
ATOM    1250 C    TYR  184  10.572   9.239   51.169 1.000 14.53
ANISOU  1250 C    TYR  184  1656     1449    2416   -70   -399 9 8
ATOM    1251 O    TYR  184  9.468    8.728   51.045 1.000 15.83
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ANISOU 1251 O   TYR 184 1717  1383  2916 -103 -443 150
ATOM   1252 CB  TYR 184 12.699  8.004 51.360 1.000 15.66
ANISOU 1252 CB  TYR 184 1686  1323  2943   69 -366 -168
ATOM   1253 CG  TYR 184 12.383  6.785 50.562 1.000 14.85
ANISOU 1253 CG  TYR 184 1743  1313  2586  109 -567  4 3
ATOM   1254 CD1 TYR 184 12.200  5.540 51.185 1.000 15.49
ANISOU 1254 CD1 TYR 184 1549  1315  3021  -29 -575 190
ATOM   1255 CD2 TYR 184 12.329  6.836 49.165 1.000 15.89
ANISOU 1255 CD2 TYR 184 1724  1763  2552   55 -27 -64
ATOM   1256 CE1 TYR 184 11.962  4.396 50.442 1.000 15.61
ANISOU 1256 CE1 TYR 184 1695  1244  2992  229 -137 113
ATOM   1257 CE2 TYR 184 12.130  5.661 48.447 1.000 17.52
ANISOU 1257 CE2 TYR 184 2340  1776  2540    4  83 -90
ATOM   1258 CZ  TYR 184 11.915  4.449 49.083 1.000 16.96
ANISOU 1258 CZ  TYR 184 1695  1736  3014 -156 -480 3 4
ATOM   1259 OH  TYR 184 11.682  3.325 48.310 1.000 18.81
ANISOU 1259 OH  TYR 184 2020  1775  3352  260 -277 -312
ATOM   1260 N   ASP 185 10.924 10.330 50.502 1.000 14.36
ANISOU 1260 N   ASP 185 1518  1599  2338   87 -225 276
ATOM   1261 CA  ASP 185 10.026 11.005 49.574 1.000 13.88
ANISOU 1261 CA  ASP 185 1875  1322  2078  141 -364 - 42
ATOM   1262 C   ASP 185 10.240 10.490 48.152 1.000 12.57
ANISOU 1262 C   ASP 185 1182  1385  2211 -160 -77 -130
ATOM   1263 O   ASP 185 11.357 10.135 47.824 1.000 14.14
ANISOU 1263 O   ASP 185 1177  1637  2559 -135 146 140
ATOM   1264 CB  ASP 185 10.294 12.521 49.580 1.000 14.97
ANISOU 1264 CB  ASP 185 1879  1293  2517  121 -186 -159
ATOM   1265 CG  ASP 185  9.702 13.155 50.830 1.000 17.61
ANISOU 1265 CG  ASP 185 2680  1659  2351  232 -13 -172
ATOM   1266 OD1 ASP 185  9.507 12.466 51.856 1.000 23.69
ANISOU 1266 OD1 ASP 185 3553  3133  2314  443 -302 521
ATOM   1267 OD2 ASP 185  9.174 14.257 50.742 1.000 24.32
ANISOU 1267 OD2 ASP 185 4063  1730  3449  644 1140 -16
ATOM   1268 N   LEU 186  9.141 10.465 47.382 1.000 12.57
ANISOU 1268 N   LEU 186 1271  1378  2126 -117 -117 -117
ATOM   1269 CA  LEU 186  9.169 10.091 45.986 1.000 12.92
ANISOU 1269 CA  LEU 186 1533  1225  2150 -331 -84 -175
ATOM   1270 C   LEU 186  9.134 11.292 45.052 1.000 14.12
ANISOU 1270 C   LEU 186 1730  1307  2330  -93 -165 5 5
ATOM   1271 O   LEU 186  8.971 11.173 43.849 1.000 20.12
ANISOU 1271 O   LEU 186 3721  1643  2280 -423  99 9 2
ATOM   1272 CB  LEU 186  8.040  9.106 45.609 1.000 13.72
ANISOU 1272 CB  LEU 186 1509  1310  2393 -270 -375 - 6
ATOM   1273 CG  LEU 186  8.020  7.811 46.438 1.000 15.92
ANISOU 1273 CG  LEU 186 1549  1141  3361 -145 -307 168
ATOM   1274 CD1 LEU 186  6.929  6.908 45.866 1.000 19.36
ANISOU 1274 CD1 LEU 186 1686  1845  3825 -700 -209 396
ATOM   1275 CD2 LEU 186  9.369  7.115 46.341 1.000 18.32
ANISOU 1275 CD2 LEU 186 1689  1742  3528  200 -432 179
ATOM   1276 N   SER 187  9.286 12.494 45.618 1.000 13.60
ANISOU 1276 N   SER 187 1326  1234  2608  -26 -95 137
ATOM   1277 CA  SER 187  9.388 13.734 44.826 1.000 13.22
ANISOU 1277 CA  SER 187 1489  1197  2338  -54 -68 2 9
ATOM   1278 C   SER 187 10.736 13.853 44.134 1.000 12.79
ANISOU 1278 C   SER 187 1482  1186  2192  -17 -114 - 90
ATOM   1279 O   SER 187 11.683 13.076 44.356 1.000 14.50
ANISOU 1279 O   SER 187 1532  1257  2720   76 -224 -113
ATOM   1280 CB  SER 187  9.201 14.915 45.811 1.000 12.87
ANISOU 1280 CB  SER 187 1463  1282  2147  164 -154 9 8
ATOM   1281 OG  SER 187 10.296 14.873 46.716 1.000 13.22
ANISOU 1281 OG  SER 187 1589  1420  2015  -34 -143 2 2 4
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- 55 -

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ATOM   1282 N   MET 188 10.898  14.844 43.292 1.000 13.44
ANISOU 1282 N   MET 188 1552    1334   2221   -64   -34  - 2 6
ATOM   1283 CA  MET 188 12.215  15.380 42.878 1.000 12.11
ANISOU 1283 CA  MET 188 1508    1261   1833   29  -60  - 6 1
ATOM   1284 C   MET 188 12.853  16.022 44.104 1.000 12.78
ANISOU 1284 C   MET 188 1563    1156   2136   167  -311 - 4 2
ATOM   1285 O   MET 188 13.896  15.550 44.600 1.000 13.40
ANISOU 1285 O   MET 188 1408    1390   2294   116  -264 - 2 6
ATOM   1286 CB  MET 188 12.038  16.300 41.667 1.000 13.66
ANISOU 1286 CB  MET 188 1565    1501   2123   44  -161  2 0 7
ATOM   1287 CG  MET 188 13.296  17.095 41.315 1.000 14.05
ANISOU 1287 CG  MET 188 1697    1595   2046   66 150 1 3 3
ATOM   1288 SD  MET 188 14.600  15.971 40.752 1.000 14.96
ANISOU 1288 SD  MET 188 1565    1591   2529   109   -81   1 1 0
ATOM   1289 CE  MET 188 16.005  17.102 40.686 1.000 17.74
ANISOU 1289 CE  MET 188 1852    2032   2855   -242  505   1 2 1
ATOM   1290 N   VAL 189 12.244  17.112 44.616 1.000 12.62
ANISOU 1290 N   VAL 189 1586    1203   2007   103   -147 - 1 3 4
ATOM   1291 CA  VAL 189 12.565  17.671 45.918 1.000 12.60
ANISOU 1291 CA  VAL 189 1412    1438   1937   -228  -11  - 4 4
ATOM   1292 C   VAL 189 11.285  17.968 46.679 1.000 11.71
ANISOU 1292 C   VAL 189 1328    1294   1825   -170  -171 - 4 9
ATOM   1293 O   VAL 189 10.227  18.099 46.050 1.000 12.56
ANISOU 1293 O   VAL 189 1446    1291   2036   21 -320  - 4 9
ATOM   1294 CB  VAL 189 13.440  18.955 45.856 1.000 12.95
ANISOU 1294 CB  VAL 189 1150    1517   2252   -174  -205 9 4
ATOM   1295 CG1 VAL 189 14.778  18.637 45.167 1.000 15.54
ANISOU 1295 CG1 VAL 189 1376    2094   2437   -140  161  9 1
ATOM   1296 CG2 VAL 189 12.730  20.056 45.082 1.000 15.00
ANISOU 1296 CG2 VAL 189 1763    1391   2547   -130  -483 8 1
ATOM   1297 N   THR 190 11.425  18.067 47.984 1.000 12.18
ANISOU 1297 N   THR 190 1445    1422   1760   -109  -130 1 0
ATOM   1298 CA  THR 190 10.353  18.454 48.897 1.000 11.98
ANISOU 1298 CA  THR 190 1292    1356   1903   -57   -221 - 1 5 1
ATOM   1299 C   THR 190 10.879  19.630 49.710 1.000 12.47
ANISOU 1299 C   THR 19C 1178    1436   2124   -32   -297 - 2 3 2
ATOM   1300 O   THR 190 11.959  19.523 50.320 1.000 15.06
ANISOU 1300 O   THR 190 1424    1767   2531   46 -571  - 4 4 6
ATOM   1301 CB  THR 190 9.913   17.297 49.808 1.000 13.16
ANISOU 1301 CB  THR 190 1509    1605   1886   -168  80  - 1 2 1
ATOM   1302 OG1 THR 190 9.481   16.201 48.993 1.000 14.47
ANISOU 1302 OG1 THR 190 1693    1469   2334   -100  -25   - 1 9 4
ATOM   1303 CG2 THR 190 8.778   17.723 50.734 1.000 14.79
ANISOU 1303 CG2 THR 190 1696    1510   2415   73 258 - 8 9
ATOM   1304 N   LEU 191 10.148  20.724 49.732 1.000 12.97
ANISOU 1304 N   LEU 191 1329    1449   2149   23 -21 - 2 8 6
ATOM   1305 CA  LEU 191 10.511  21.908 50.526 1.000 13.75
ANISOU 1305 CA  LEU 191 1543    1442   2238   78 -206  - 3 0 1
ATOM   1306 C   LEU 191 9.603   21.964 51.763 1.000 14.47
ANISOU 1306 C   LEU 191 1543    1689   2265   83 -179  - 4 1 2
ATOM   1307 O   LEU 191 8.370   21.868 51.645 1.000 16.58
ANISOU 1307 O   LEU 191 1517    2486   2297   219   -176 - 7 2 5
ATOM   1308 CB  LEU 191 10.398  23.212 49.722 1.000 15.37
ANISOU 1308 CB  LEU 191 1717    1444   2680   58 -106  - 1 8 9
ATOM   1309 CG  LEU 191 11.705  23.578 48.973 1.000 16.10
ANISOU 1309 CG  LEU 191 1747    1688   2680   -128  -113 - 1 3 5
ATOM   1310 CD1 LEU 191 12.069  22.565 47.906 1.000 16.67
ANISOU 1310 CD1 LEU 191 2034    2093   2209   -23   -64  1 9
ATOM   1311 CD2 LEU 191 11.570  24.959 48.350 1.000 18.53
ANISOU 1311 CD2 LEU 191 2297    1906   2837   -345  -437 1 4 8
ATOM   1312 N   ILE 192 10.199  22.148 52.946 1.000 15.36
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ANISOU 1312 N   ILE  192 1479   2152   2204    -47  -165 -164
ATOM   1313 CA  ILE  192 9.417  22.162 54.194 1.000 15.13
ANISOU 1313 CA  ILE  192 1456   2043   2251   -304  -173 -280
ATOM   1314 C   ILE  192 9.692  23.423 55.010 1.000 15.58
ANISOU 1314 C   ILE  192 1696   1973   2251   -199  -254 -226
ATOM   1315 O   ILE  192 10.836 23.691 55.381 1.000 17.20
ANISOU 1315 O   ILE  192 1856   2449   2229   -307  -341 -574
ATOM   1316 CB  ILE  192 9.722  20.920 55.040 1.000 17.03
ANISOU 1316 CB  ILE  192 2246   1958   2266    -52   325 -303
ATOM   1317 CG1 ILE  192 9.454  19.596 54.317 1.000 19.80
ANISOU 1317 CG1 ILE  192 3040   2010   2473    -71   128 -382
ATOM   1318 CG2 ILE  192 8.995  20.967 56.403 1.000 18.14
ANISOU 1318 CG2 ILE  192 2278   2354   2262    229   290 -258
ATOM   1319 CD1 ILE  192 9.420  18.387 55.235 1.000 31.57
ANISOU 1319 CD1 ILE  192 4658   2114   5222   -398 -1094 765
ATOM   1320 N   GLN  193 8.625  24.172 55.249 1.000 17.04
ANISOU 1320 N   GLN  193 2042   2185   2248    112  -388 -301
ATOM   1321 CA  GLN  193 8.680  25.291 56.201 1.000 17.70
ANISOU 1321 CA  GLN  193 1737   2167   2824   -204  -186 -559
ATOM   1322 C   GLN  193 7.898  24.869 57.443 1.000 19.67
ANISOU 1322 C   GLN  193 1882   2624   2969   -232   211 -840
ATOM   1323 O   GLN  193 7.082  23.942 57.426 1.000 26.60
ANISOU 1323 O   GLN  193 2066   3843   4197   -965  -110 6 2
ATOM   1324 CB  GLN  193 8.129  26.598 55.643 1.000 23.74
ANISOU 1324 CB  GLN  193 3070   2388   3561    500   -98 -514
ATOM   1325 CG  GLN  193 8.913  27.304 54.559 1.000 28.26
ANISOU 1325 CG  GLN  193 4664   2384   3689    656   209 0
ATOM   1326 CD  GLN  193 8.338  28.665 54.156 1.000 26.30
ANISOU 1326 CD  GLN  193 2868   2943   4181    791     3 111
ATOM   1327 OE1 GLN  193 7.193  28.695 53.688 1.000 45.31
ANISOU 1327 OE1 GLN  193 2826   7147   7241    -51  -616 3173
ATOM   1328 NE2 GLN  193 9.080  29.748 54.345 1.000 30.44
ANISOU 1328 NE2 GLN  193 3609   2588   5368    418  1259 692
ATOM   1329 N   GLN  194 8.241  25.259 58.645 1.000 22.04
ANISOU 1329 N   GLN  194 2926   2758   2690    303  -368 -83
ATOM   1330 CA  GLN  194 7.569  24.793 59.847 1.000 22.68
ANISOU 1330 CA  GLN  194 3144   2617   2855     82  -230 -150
ATOM   1331 C   GLN  194 7.275  26.054 60.663 1.000 22.19
ANISOU 1331 C   GLN  194 2809   2768   2856    117  -396 -320
ATOM   1332 O   GLN  194 7.889  27.100 60.418 1.000 25.26
ANISOU 1332 O   GLN  194 4041   2877   2679   -313   -21 -411
ATOM   1333 CB  GLN  194 8.467  23.943 60.739 1.000 29.21
ANISOU 1333 CB  GLN  194 4493   2707   3899    477   -50 939
ATOM   1334 CG  GLN  194 9.105  22.735 60.083 1.000 28.80
ANISOU 1334 CG  GLN  194 3108   3530   4305    576  -121 494
ATOM   1335 CD  GLN  194 10.296 22.332 60.962 1.000 31.97
ANISOU 1335 CD  GLN  194 2961   5384   3800    824   359 1075
ATOM   1336 OE1 GLN  194 11.421 22.325 60.474 1.000 27.28
ANISOU 1336 OE1 GLN  194 2781   4189   3397    118   133 -249
ATOM   1337 NE2 GLN  194 9.998  22.100 62.232 1.000 29.82
ANISOU 1337 NE2 GLN  194 3540   3958   3832    989   645 800
ATOM   1338 N   THR  195 6.419  25.891 61.658 1.000 23.30
ANISOU 1338 N   THR  195 2407   3058   3387   -211  -235 -720
ATOM   1339 CA  THR  195 6.476  26.833 62.768 1.000 27.14
ANISOU 1339 CA  THR  195 3459   3544   3308     25   -50 -890
ATOM   1340 C   THR  195 6.933  25.997 63.958 1.000 26.11
ANISOU 1340 C   THR  195 3825   2829   3268    558    19 -1247
ATOM   1341 O   THR  195 6.639  24.815 63.994 1.000 28.17
ANISOU 1341 O   THR  195 2973   2916   4815    481   171 -1030
ATOM   1342 CB  THR  195 5.149  27.534 63.069 1.000 25.87
ANISOU 1342 CB  THR  195 3428   2849   3551    -16  -592 -1137
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ATOM    1343 OG1  THR   195 4.111    26.550    63.196 1.000 25.45
ANISOU  1343 OG1  THR   195 3427     3101      3141    -9 -117  -750
ATOM    1344 CG2  THR   195 4.788    28.396    61.847 1.000 31.31
ANISOU  1344 CG2  THR   195 4965     2552      4380   274  -70  -409
ATOM    1345 N    PRO   196 7.604    26.587    64.923 1.000 30.84
ANISOU  1345 N    PRO   196 5225     3191      3300   785 -517 -1542
ATOM    1346 CA   PRO   196 8.101    25.823    66.065 1.000 28.50
ANISOU  1346 CA   PRO   196 3113     3700      4016  -279 -441 -646
ATOM    1347 C    PRO   196 7.018    25.534    67.096 1.000 28.97
ANISOU  1347 C    PRO   196 3581     3326      4102    42 113 -1381
ATOM    1348 O    PRO   196 6.002    26.229    67.192 1.000 32.32
ANISOU  1348 O    PRO   196 4146     4649      3485   901 -180 -1658
ATOM    1349 CB   PRO   196 9.094    26.816    66.694 1.000 29.72
ANISOU  1349 CB   PRO   196 3888     3292      4111  -285 -353 -1072
ATOM    1350 CG   PRO   196 8.533    28.174    66.364 1.000 34.87
ANISOU  1350 CG   PRO   196 6285     3575      3390   421 -1326 -1332
ATOM    1351 CD   PRO   196 7.897    28.035    65.012 1.000 33.20
ANISOU  1351 CD   PRO   196 6407     3606      2600  -598 -494 -1031
ATOM    1352 N    CYS   197 7.289    24.533    67.919 1.000 26.96
ANISOU  1352 N    CYS   197 2739     4038      3465  -113  85 -1227
ATOM    1353 CA   CYS   197 6.519    24.289    69.126 1.000 31.73
ANISOU  1353 CA   CYS   197 3979     4543      3533   -39 721 -1726
ATOM    1354 C    CYS   197 6.803    25.412    70.124 1.000 35.58
ANISOU  1354 C    CYS   197 4213     4819      4486  -480 1126 -2282
ATOM    1355 O    CYS   197 7.917    25.939    70.175 1.000 31.34
ANISOU  1355 O    CYS   197 3817     4845      3246    36 -383 -992
ATOM    1356 CB   CYS   197 6.940    22.962    69.767 1.000 35.79
ANISOU  1356 CB   CYS   197 5913     4705      2980   284 1566 -1423
ATOM    1357 SG   CYS   197 6.553    21.535    68.741 1.000 28.53
ANISOU  1357 SG   CYS   197 3605     4224      3009    50  -5  -452
ATOM    1358 N    ALA   198 5.771    25.791    70.866 1.000 37.27
ANISOU  1358 N    ALA   198 5038     4984      4139  -421 1647 -2070
ATOM    1359 CA   ALA   198 5.983    26.811    71.888 1.000 35.91
ANISOU  1359 CA   ALA   198 6273     4144      3230   910 522 -1230
ATOM    1360 C    ALA   198 6.993    26.328    72.921 1.000 44.30
ANISOU  1360 C    ALA   198 5998     6138      4696  -193 -199 3 3
ATOM    1361 O    ALA   198 7.759    27.127    73.457 1.000 42.85
ANISOU  1361 O    ALA   198 5209     6328      4742     7 490 -555
ATOM    1362 CB   ALA   198 4.671    27.231    72.532 1.000 41.70
ANISOU  1362 CB   ALA   198 7588     5697      2557  2355 1068 -721
ATOM    1363 N    ASN   199 7.036    25.036    73.225 1.000 34.93
ANISOU  1363 N    ASN   199 4027     5975      3270   805 167 -621
ATOM    1364 CA   ASN   199 7.969    24.578    74.264 1.000 33.58
ANISOU  1364 CA   ASN   199 3643     6167      2950  -670 -265 -808
ATOM    1365 C    ASN   199 9.352    24.262    73.718 1.000 31.53
ANISOU  1365 C    ASN   199 4077     5048      2853   384 -420 -855
ATOM    1366 O    ASN   199 10.153   23.667    74.467 1.000 36.33
ANISOU  1366 O    ASN   199 4223     5624      3957  -403 -1305 -126
ATOM    1367 CB   ASN   199 7.441    23.308    74.929 1.000 36.38
ANISOU  1367 CB   ASN   199 4533     5029      4262   859 584 -522
ATOM    1368 CG   ASN   199 7.198    22.180    73.952 1.000 31.28
ANISOU  1368 CG   ASN   199 4030     4863      2993   882 202 178
ATOM    1369 OD1  ASN   199 7.743    22.151    72.853 1.000 37.62
ANISOU  1369 OD1  ASN   199 4693     6272      3330   122 728 -56
ATOM    1370 ND2  ASN   199 6.393    21.190    74.314 1.000 36.42
ANISOU  1370 ND2  ASN   199 3508     6251      4078   -13 1132 -958
ATOM    1371 N    GLY   200 9.616    24.569    72.449 1.000 30.93
ANISOU  1371 N    GLY   200 4342     4232      3179   436 144 -692
ATOM    1372 CA   GLY   200 10.920   24.304    71.866 1.000 35.26
ANISOU  1372 CA   GLY   200 4430     4905      4060  -317 480 -2400
ATOM    1373 C    GLY   200 11.184   22.886    71.429 1.000 36.83
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ANISOU 1373 C   GLY  200 4683      4375      4936   -360  1601 -1460
ATOM   1374 O   GLY  200 12.257 22.566 70.897 1.000 32.71
ANISOU 1374 O   GLY  200 3921      4072      4436   -377   752 -1400
ATOM   1375 N   PHE  201 10.264 21.939 71.588 1.000 28.66
ANISOU 1375 N   PHE  201 3813      4229      2847    145   463  -326
ATOM   1376 CA  PHE  201 10.491 20.575 71.106 1.000 27.55
ANISOU 1376 CA  PHE  201 3190      4337      2943   -233   219  -672
ATOM   1377 C   PHE  201 10.752 20.553 69.600 1.000 24.89
ANISOU 1377 C   PHE  201 2943      3682      2832    190  -268  -379
ATOM   1378 O   PHE  201 9.994  21.255 68.910 1.000 28.22
ANISOU 1378 O   PHE  201 3583      3184      3957     10  -421   277
ATOM   1379 CB  PHE  201 9.250  19.729 71.413 1.000 30.46
ANISOU 1379 CB  PHE  201 3153      4862      3560   -371   -40   -73
ATOM   1380 CG  PHE  201 9.425  18.262 71.027 1.000 34.89
ANISOU 1380 CG  PHE  201 4015      4609      4632   -772   162    89
ATOM   1381 CD1 PHE  201 10.395 17.472 71.605 1.000 31.18
ANISOU 1381 CD1 PHE  201 3436      4103      4310   -875   -93 -1105
ATOM   1382 CD2 PHE  201 8.613  17.681 70.078 1.000 28.84
ANISOU 1382 CD2 PHE  201 2979      4019      3960    329   612  -107
ATOM   1383 CE1 PHE  201 10.564 16.160 71.240 1.000 37.73
ANISOU 1383 CE1 PHE  201 6489      3608      4239  -1078 -1475  -500
ATOM   1384 CE2 PHE  201 8.761  16.363 69.679 1.000 31.78
ANISOU 1384 CE2 PHE  201 4327      3911      3838    652   250   119
ATOM   1385 CZ  PHE  201 9.755  15.606 70.265 1.000 29.78
ANISOU 1385 CZ  PHE  201 3705      3397      4211      6  -638  -849
ATOM   1386 N   VAL  202 11.706 19.751 69.144 1.000 23.51
ANISOU 1386 N   VAL  202 2671      3392      2868   -292    -1  -578
ATOM   1387 CA  VAL  202 11.969 19.626 67.706 1.000 26.37
ANISOU 1387 CA  VAL  202 3025      4050      2946   -667    57  -724
ATOM   1388 C   VAL  202 11.423 18.283 67.198 1.000 22.75
ANISOU 1388 C   VAL  202 2729      3348      2567     96  -120  -435
ATOM   1389 O   VAL  202 11.880 17.190 67.541 1.000 28.71
ANISOU 1389 O   VAL  202 3249      3799      3859    119    31   661
ATOM   1390 CB  VAL  202 13.476 19.721 67.415 1.000 24.99
ANISOU 1390 CB  VAL  202 3060      3427      3008   -278   283   152
ATOM   1391 CG1 VAL  202 13.715 19.464 65.938 1.000 27.70
ANISOU 1391 CG1 VAL  202 4642      2577      3307     87  1014    -3
ATOM   1392 CG2 VAL  202 14.050 21.071 67.823 1.000 26.80
ANISOU 1392 CG2 VAL  202 2826      3868      3487   -490   474  -398
ATOM   1393 N   SER  203 10.405 18.402 66.333 1.000 24.10
ANISOU 1393 N   SER  203 2194      3607      3356    -31  -179  -528
ATOM   1394 CA  SER  203 9.634  17.231 65.940 1.000 23.70
ANISOU 1394 CA  SER  203 2373      3584      3046   -290   308  -533
ATOM   1395 C   SER  203 10.168 16.511 64.710 1.000 21.28
ANISOU 1395 C   SER  203 2173      3041      2871     46   227   -42
ATOM   1396 O   SER  203 10.159 15.285 64.640 1.000 27.60
ANISOU 1396 O   SER  203 4105      3097      3284   -482  1010  -249
ATOM   1397 CB  SER  203 8.148  17.571 65.685 1.000 29.06
ANISOU 1397 CB  SER  203 2251      3790      5001   -180   203 -2064
ATOM   1398 OG  SER  203 7.584  18.175 66.843 1.000 32.55
ANISOU 1398 OG  SER  203 3840      4298      4231    920  1099  -382
ATOM   1399 N   LEU  204 10.688 17.233 63.724 1.000 22.46
ANISOU 1399 N   LEU  204 2476      3013      3043     79   450   -46
ATOM   1400 CA  LEU  204 11.166 16.530 62.544 1.000 20.26
ANISOU 1400 CA  LEU  204 2200      2831      2667     45   -18   -15
ATOM   1401 C   LEU  204 12.595 16.038 62.747 1.000 18.83
ANISOU 1401 C   LEU  204 2151      2528      2477    -75    60    -1
ATOM   1402 O   LEU  204 13.443 16.783 63.251 1.000 20.47
ANISOU 1402 O   LEU  204 2333      2386      3059   -303  -195   404
ATOM   1403 CB  LEU  204 11.103 17.486 61.362 1.000 21.42
ANISOU 1403 CB  LEU  204 2718      2548      2871    311   -16    -8
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ATOM   1404 CG  LEU 204 9.769    18.183    61.079 1.000 33.57
ANISOU 1404 CG  LEU 204 2820     4319      5617    177  -1316 1172
ATOM   1405 CD1 LEU 204 9.797    18.747    59.660 1.000 36.19
ANISOU 1405 CD1 LEU 204 4402     3807      5540   1276  -1167  987
ATOM   1406 CD2 LEU 204 8.581    17.234    61.219 1.000 37.76
ANISOU 1406 CD2 LEU 204 3058     5328      5960   -526  -1896  686
ATOM   1407 N   GLN 205 12.864   14.836    62.284 1.000 20.33
ANISOU 1407 N   GLN 205 2518     2644      2563    104   -31  -129
ATOM   1408 CA  GLN 205 14.209   14.247    62.335 1.000 18.88
ANISOU 1408 CA  GLN 205 2522     2225      2425     -6  -181   3 6
ATOM   1409 C   GLN 205 14.512   13.504    61.036 1.000 18.19
ANISOU 1409 C   GLN 205 1986     2383      2543   -143  -188  -80
ATOM   1410 O   GLN 205 13.577   13.033    60.408 1.000 19.87
ANISOU 1410 O   GLN 205 1974     3063      2514   -125  -212 -237
ATOM   1411 CB  GLN 205 14.296   13.267    63.493 1.000 24.25
ANISOU 1411 CB  GLN 205 3948     2716      2548    202  -343 296
ATOM   1412 CG  GLN 205 14.164   13.948    64.856 1.000 30.64
ANISOU 1412 CG  GLN 205 4099     5159      2382    850  -327  -89
ATOM   1413 CD  GLN 205 14.744   13.078    65.948 1.000 28.28
ANISOU 1413 CD  GLN 205 4473     3633      2640   -161  -1015 -390
ATOM   1414 OE1 GLN 205 14.307   11.921    66.041 1.000 37.69
ANISOU 1414 OE1 GLN 205 5733     5073      3515  -2145  -699 478
ATOM   1415 NE2 GLN 205 15.710   13.553    66.711 1.000 40.53
ANISOU 1415 NE2 GLN 205 6798     4417      4185  -1341 -2865 323
ATOM   1416 N   ALA 206 15.752   13.471    60.576 1.000 18.52
ANISOU 1416 N   ALA 206 2070     2199      2769   -240   -13   4
ATOM   1417 CA  ALA 206 16.152   12.700    59.405 1.000 18.42
ANISOU 1417 CA  ALA 206 2074     2351      2575   -100  -158 2 3
ATOM   1418 C   ALA 206 17.343   11.802    59.738 1.000 17.41
ANISOU 1418 C   ALA 206 2107     2158      2350   -185  -254  -17
ATOM   1419 O   ALA 206 18.123   12.203    60.613 1.000 20.67
ANISOU 1419 O   ALA 206 2469     2410      2973    -48  -711 -396
ATOM   1420 CB  ALA 206 16.637   13.599    58.270 1.000 18.77
ANISOU 1420 CB  ALA 206 2119     2310      2703    156   -65  1 4 7
ATOM   1421 N   GLU 207 17.492   10.764    58.931 1.000 18.09
ANISOU 1421 N   GLU 207 2092     2101      2680   -249  -496 -162
ATOM   1422 CA  GLU 207 18.710   9.944     58.966 1.000 19.48
ANISOU 1422 CA  GLU 207 2210     2091      3100    -73  -432  -44
ATOM   1423 C   GLU 207 19.851   10.730    58.320 1.000 19.98
ANISOU 1423 C   GLU 207 2018     2233      3342    220  -560 5 4 4
ATOM   1424 O   GLU 207 19.732   11.068    57.143 1.000 20.33
ANISOU 1424 O   GLU 207 2000     2753      2970      5  -471  8 9
ATOM   1425 CB  GLU 207 18.566   8.623     58.214 1.000 24.03
ANISOU 1425 CB  GLU 207 3401     1784      3946    316  -1226  6 1
ATOM   1426 CG  GLU 207 19.757   7.674     58.295 1.000 24.35
ANISOU 1426 CG  GLU 207 3223     1907      4121    354    93 4 6 7
ATOM   1427 CD  GLU 207 20.730   7.791     57.129 1.000 31.69
ANISOU 1427 CD  GLU 207 2729     5178      4134  -1218  -175 1 2 2
ATOM   1428 OE1 GLU 207 20.376   7.611     55.943 1.000 26.97
ANISOU 1428 OE1 GLU 207 2849     3404      3993     31  -256  3 0 9
ATOM   1429 OE2 GLU 207 21.908   8.121     57.407 1.000 30.70
ANISOU 1429 OE2 GLU 207 2484     3416      5764   -233  -342 -1168
ATOM   1430 N   VAL 208 20.919   10.936    59.078 1.000 18.53
ANISOU 1430 N   VAL 208 2020     2112      2907    130  -362 320
ATOM   1431 CA  VAL 208 22.150   11.547    58.541 1.000 19.53
ANISOU 1431 CA  VAL 208 2044     2238      3137     39  -476  6 3 0
ATOM   1432 C   VAL 208 23.341   10.755    59.088 1.000 21.95
ANISOU 1432 C   VAL 208 2040     2792      3507    225  -461 7 9 7
ATOM   1433 O   VAL 208 23.460   10.663    60.314 1.000 23.82
ANISOU 1433 O   VAL 208 2262     3240      3547    -40  -858 8 2 5
ATOM   1434 CB  VAL 208 22.271   13.027    58.905 1.000 19.72
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ANISOU 1434 CB  VAL 208 1918     2429     3145    -47   -308  311
ATOM   1435 CG1 VAL 208 23.524   13.626   58.281  1.000 23.14
ANISOU 1435 CG1 VAL 208 2524     2374     3895    -202  284   349
ATOM   1436 CG2 VAL 208 21.030   13.812   58.469  1.000 19.47
ANISOU 1436 CG2 VAL 208 2462     2279     2658    232   -667  -87
ATOM   1437 N   GLY 209 24.180   10.169   58.246  1.000 23.88
ANISOU 1437 N   GLY 209 2500     2449     4123    465   -711  36
ATOM   1438 CA  GLY 209 25.306   9.374    58.773  1.000 26.42
ANISOU 1438 CA  GLY 209 1987     3599     4450    460   -487  516
ATOM   1439 C   GLY 209 24.905   8.250    59.695  1.000 30.01
ANISOU 1439 C   GLY 209 3469     3240     4693    238   -1422 732
ATOM   1440 O   GLY 209 25.609   7.835    60.629  1.000 31.45
ANISOU 1440 O   GLY 209 4053     4458     3438    1225  -897  83
ATOM   1441 N   GLY 210 23.691   7.702    59.523  1.000 26.64
ANISOU 1441 N   GLY 210 3165     3214     3744    259   -85   350
ATOM   1442 CA  GLY 210 23.263   6.585    60.360  1.000 29.78
ANISOU 1442 CA  GLY 210 4603     3091     3619    -55   -997  584
ATOM   1443 C   GLY 210 22.622   6.993    61.663  1.000 38.28
ANISOU 1443 C   GLY 210 5827     4212     4507    -2536 732   50
ATOM   1444 O   GLY 210 22.160   6.187    62.481  1.000 41.45
ANISOU 1444 O   GLY 210 4152     6516     5082    -1874 -567  2346
ATOM   1445 N   ALA 211 22.512   8.274    61.976  1.000 32.81
ANISOU 1445 N   ALA 211 4803     4625     3037    1372  -1177 632
ATOM   1446 CA  ALA 211 21.828   8.603    63.235  1.000 35.62
ANISOU 1446 CA  ALA 211 3993     5958     3584    1061  -610  970
ATOM   1447 C   ALA 211 20.663   9.543    62.940  1.000 31.43
ANISOU 1447 C   ALA 211 3508     4737     3699    302   69    1854
ATOM   1448 O   ALA 211 20.652   10.097   61.858  1.000 28.28
ANISOU 1448 O   ALA 211 3661     4062     3020    -571  -551  1010
ATOM   1449 CB  ALA 211 22.812   9.278    64.170  1.000 41.36
ANISOU 1449 CB  ALA 211 3644     8904     3169    1372  -18   -791
ATOM   1450 N   PHE 212 19.682   9.676    63.825  1.000 36.68
ANISOU 1450 N   PHE 212 5211     4237     4489    1166  1265  2171
ATOM   1451 CA  PHE 212 18.620   10.654   63.641  1.000 28.82
ANISOU 1451 CA  PHE 212 4490     3167     3293    263   504   1037
ATOM   1452 C   PHE 212 19.100   12.023   64.124  1.000 34.72
ANISOU 1452 C   PHE 212 6746     3760     2685    -248  -539  776
ATOM   1453 O   PHE 212 19.667   12.191   65.210  1.000 39.12
ANISOU 1453 O   PHE 212 6144     5384     3335    -549  -1129 1220
ATOM   1454 CB  PHE 212 17.358   10.219   64.388  1.000 45.35
ANISOU 1454 CB  PHE 212 6376     2569     8288    1348  3748  2314
ATOM   1455 N   THR 213 18.906   13.008   63.271  1.000 26.30
ANISOU 1455 N   THR 213 4134     2738     3122    662   -581  100
ATOM   1456 CA  THR 213 19.424   14.359   63.433  1.000 25.08
ANISOU 1456 CA  THR 213 3587     2852     3089    767   -810  -323
ATOM   1457 C   THR 213 18.190   15.283   63.400  1.000 23.81
ANISOU 1457 C   THR 213 2835     2652     3560    215   -855  -643
ATOM   1458 O   THR 213 17.329   15.137   62.517  1.000 21.40
ANISOU 1458 O   THR 213 2640     2269     3223    -328  -580  -179
ATOM   1459 CB  THR 213 20.398   14.759   62.308  1.000 27.60
ANISOU 1459 CB  THR 213 3155     3220     4113    189   -356  -798
ATOM   1460 OG1 THR 213 21.673   14.084   62.374  1.000 32.00
ANISOU 1460 OG1 THR 213 3582     4220     4356    746   -410  520
ATOM   1461 CG2 THR 213 20.735   16.254   62.355  1.000 29.45
ANISOU 1461 CG2 THR 213 4422     3320     3448    -106  -1265 -204
ATOM   1462 N   ASP 214 18.119   16.177   64.371  1.000 21.05
ANISOU 1462 N   ASP 214 2790     2236     2972    -82   -380  -142
ATOM   1463 CA  ASP 214 17.001   17.110   64.462  1.000 20.61
ANISOU 1463 CA  ASP 214 2742     2095     2993    -117  -898  -379
ATOM   1464 C   ASP 214 16.994   18.030   63.226  1.000 20.58
ANISOU 1464 C   ASP 214 2373     2525     2923    182   -169  -237
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- 61 -

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ATOM     1465 O    ASP    214 18.018  18.430  62.678 1.000 23.02
ANISOU   1465 O    ASP    214 2461    2883    3404    -167  -52   -572
ATOM     1466 CB   ASP    214 17.205  18.058  65.637 1.000 23.54
ANISOU   1466 CB   ASP    214 3304    2607    3032    -92  -748  -668
ATOM     1467 CG   ASP    214 16.915  17.506  67.004 1.000 24.93
ANISOU   1467 CG   ASP    214 3545    2850    3079    450  -417  -614
ATOM     1468 OD1  ASP    214 16.357  16.395  67.113 1.000 29.17
ANISOU   1468 OD1  ASP    214 4134    3070    3878    202  -705 262
ATOM     1469 OD2  ASP    214 17.276  18.191  67.990 1.000 34.38
ANISOU   1469 OD2  ASP    214 6917    3040    3107    1017 -1413  -736
ATOM     1470 N    LEU    215 15.802  18.452  62.859 1.000 20.74
ANISOU   1470 N    LEU    215 2426    2372    3081    86  -60 306
ATOM     1471 CA   LEU    215 15.568  19.401  61.796 1.000 20.55
ANISOU   1471 CA   LEU    215 2895    2013    2899    -202  -178 141
ATOM     1472 C    LEU    215 14.724  20.552  62.332 1.000 19.02
ANISOU   1472 C    LEU    215 2482    2240    2504    -142  -34  321
ATOM     1473 O    LEU    215 13.510  20.613  62.142 1.000 22.39
ANISOU   1473 O    LEU    215 2635    2483    3389    -160  -475 573
ATOM     1474 CB   LEU    215 14.826  18.722  60.650 1.000 22.04
ANISOU   1474 CB   LEU    215 2778    2510    3086    -140  -261  -65
ATOM     1475 CG   LEU    215 15.598  17.502  60.128 1.000 25.25
ANISOU   1475 CG   LEU    215 3680    2829    3085    85  -166  -402
ATOM     1476 CD1  LEU    215 14.680  16.736  59.174 1.000 27.12
ANISOU   1476 CD1  LEU    215 4886    2934    2482    419  -1128  -65
ATOM     1477 CD2  LEU    215 16.881  18.046  59.510 1.000 30.76
ANISOU   1477 CD2  LEU    215 3434    3089    5165    1003  524  561
ATOM     1478 N    PRO    216 15.383  21.433  63.078 1.000 19.68
ANISOU   1478 N    PRO    216 2407    2191    2879    -157  148  103
ATOM     1479 CA   PRO    216 14.665  22.534  63.708 1.000 22.42
ANISOU   1479 CA   PRO    216 2869    2812    2836    272   10  -228
ATOM     1480 C    PRO    216 14.201  23.576  62.698 1.000 25.36
ANISOU   1480 C    PRO    216 4118    2433    3086    566  -131 -315
ATOM     1481 O    PRO    216 14.700  23.759  61.586 1.000 24.67
ANISOU   1481 O    PRO    216 3682    2406    3284    187  -176  -26
ATOM     1482 CB   PRO    216 15.693  23.092  64.676 1.000 23.88
ANISOU   1482 CB   PRO    216 3108    3049    2917    -216  116  -318
ATOM     1483 CG   PRO    216 17.033  22.701  64.146 1.000 28.31
ANISOU   1483 CG   PRO    216 2994    2996    4766    -88  -117 -1454
ATOM     1484 CD   PRO    216 16.807  21.405  63.436 1.000 24.55
ANISOU   1484 CD   PRO    216 2353    1777    5197    -436  -83  -348
ATOM     1485 N    TYR    217 13.154  24.287  63.102 1.000 24.13
ANISOU   1485 N    TYR    217 3237    2704    3229    244  -631 -511
ATOM     1486 CA   TYR    217 12.676  25.510  62.462 1.000 26.08
ANISOU   1486 CA   TYR    217 2514    2899    4498    104  -592  39
ATOM     1487 C    TYR    217 13.824  26.516  62.369 1.000 25.24
ANISOU   1487 C    TYR    217 3049    2948    3592    -257  -506 -538
ATOM     1488 O    TYR    217 14.570  26.675  63.340 1.000 31.78
ANISOU   1488 O    TYR    217 4114    2863    5096    -352  -2151 564
ATOM     1489 CB   TYR    217 11.559  26.103  63.315 1.000 25.97
ANISOU   1489 CB   TYR    217 2747    2773    4346    86  -615  -167
ATOM     1490 CG   TYR    217 11.189  27.543  63.125 1.000 31.64
ANISOU   1490 CG   TYR    217 3080    2803    6139    338  -1473  -644
ATOM     1491 CD1  TYR    217 10.430  27.928  62.022 1.000 27.85
ANISOU   1491 CD1  TYR    217 2238    3029    5314    511  -175  93
ATOM     1492 CD2  TYR    217 11.512  28.522  64.069 1.000 38.49
ANISOU   1492 CD2  TYR    217 4721    2813    7093    -686  -1682  -749
ATOM     1493 CE1  TYR    217 10.021  29.219  61.772 1.000 26.53
ANISOU   1493 CE1  TYR    217 1908    2675    5496    -41  107   69
ATOM     1494 CE2  TYR    217 11.113  29.835  63.827 1.000 42.90
ANISOU   1494 CE2  TYR    217 7112    2347    6842    -1415 -1949  -218
ATOM     1495 CZ   TYR    217 10.373  30.168  62.712 1.000 34.93
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ANISOU 1495 CZ  TYR 217 4042      2747    6483   -1462 -545 166
ATOM   1496 OH  TYR 217 9.996   31.486  62.473 1.000 36.41
ANISOU 1496 OH  TYR 217 5499      2895    5439   -753  -250 -289
ATOM   1497 N   ARG 218 14.022  27.110  61.218 1.000 25.58
ANISOU 1497 N   ARG 218 3461      2406    3852   -227  -533 -476
ATOM   1498 CA  ARG 218 14.923  28.243  61.049 1.000 29.26
ANISOU 1498 CA  ARG 218 3630      3270    4219   -784  -1349 268
ATOM   1499 C   ARG 218 14.113  29.336  60.365 1.000 24.81
ANISOU 1499 C   ARG 218 4063      2949    2415   -382  -228 -56
ATOM   1500 O   ARG 218 13.745  29.174  59.212 1.000 29.56
ANISOU 1500 O   ARG 218 6298      2267    2666   -890  -994 165
ATOM   1501 CB  ARG 218 16.162  27.823  60.256 1.000 35.90
ANISOU 1501 CB  ARG 218 3223      3685    6732   -624  -703 896
ATOM   1502 CG  ARG 218 17.369  28.665  60.661 1.000 51.38
ANISOU 1502 CG  ARG 218 4740      6768    8015   -3031 430 -183
ATOM   1503 CD  ARG 218 18.539  28.606  59.701 1.000 38.84
ANISOU 1503 CD  ARG 218 4968      6308    3482   -3596 -1165 1647
ATOM   1504 NE  ARG 218 19.343  27.395  59.905 1.000 45.09
ANISOU 1504 NE  ARG 218 4655      7495    4982   -2325 -962 -94
ATOM   1505 CZ  ARG 218 20.272  27.208  58.959 1.000 55.53
ANISOU 1505 CZ  ARG 218 5299      11458   4340   -2701 -1188 -1948
ATOM   1506 NH1 ARG 218 20.289  28.158  58.031 1.000 60.85
ANISOU 1506 NH1 ARG 218 2399      16648   4071   -1943 -1333 548
ATOM   1507 NH2 ARG 218 21.060  26.165  59.001 1.000 60.37
ANISOU 1507 NH2 ARG 218 8580      10111   4247   -2152 639 -4241
ATOM   1508 N   PRO 219 13.871  30.496  60.972 1.000 25.89
ANISOU 1508 N   PRO 219 2625      4126    3086   35 296 -1014
ATOM   1509 CA  PRO 219 13.065  31.548  60.326 1.000 28.10
ANISOU 1509 CA  PRO 219 2828      3120    4730   -410 379 -696
ATOM   1510 C   PRO 219 13.636  31.959  58.981 1.000 28.43
ANISOU 1510 C   PRO 219 3141      3010    4653   -190 116 -328
ATOM   1511 O   PRO 219 12.904  32.393  58.081 1.000 34.17
ANISOU 1511 O   PRO 219 4734      3500    4750   302 -798 -893
ATOM   1512 CB  PRO 219 13.115  32.717  61.316 1.000 39.70
ANISOU 1512 CB  PRO 219 5621      3612    5852   -500 1615 -1527
ATOM   1513 CG  PRO 219 13.368  32.033  62.628 1.000 42.38
ANISOU 1513 CG  PRO 219 6139      5277    4688   -257 2084 -2086
ATOM   1514 CD  PRO 219 14.370  30.943  62.289 1.000 32.77
ANISOU 1514 CD  PRO 219 3901      5719    2831   -602 828 -1603
ATOM   1515 N   ASP 220 14.950  31.824  58.811 1.000 25.65
ANISOU 1515 N   ASP 220 3328      1582    4837   -276 801 -878
ATOM   1516 CA  ASP 220 15.590  32.280  57.587 1.000 26.45
ANISOU 1516 CA  ASP 220 3594      2115    4341   -782 248 -861
ATOM   1517 C   ASP 220 15.781  31.305  56.451 1.000 28.46
ANISOU 1517 C   ASP 220 3549      1843    5423   -111 1638 -943
ATOM   1518 O   ASP 220 16.432  31.620  55.433 1.000 25.80
ANISOU 1518 O   ASP 220 3249      2021    4533   -140 623 -412
ATOM   1519 CB  ASP 220 16.911  32.962  57.998 1.000 33.76
ANISOU 1519 CB  ASP 220 2351      3539    6938   -445 1187 -1724
ATOM   1520 CG  ASP 220 17.882  31.913  58.502 1.000 42.36
ANISOU 1520 CG  ASP 220 2653      3531    9912   -812 230 -957
ATOM   1521 OD1 ASP 220 17.484  31.170  59.423 1.000 37.00
ANISOU 1521 OD1 ASP 220 3154      4148    6757   -104 -410 -2001
ATOM   1522 OD2 ASP 220 18.981  31.787  57.957 1.000 37.34
ANISOU 1522 OD2 ASP 220 2520      4700    6969   93 -824 -1266
ATOM   1523 N   ALA 221 15.292  30.072  56.537 1.000 24.79
ANISOU 1523 N   ALA 221 4148      1872    3398   -252 671 -659
ATOM   1524 CA  ALA 221 15.695  29.016  55.596 1.000 19.17
ANISOU 1524 CA  ALA 221 2165      1868    3251   -52 -92 -610
ATOM   1525 C   ALA 221 14.551  27.996  55.479 1.000 18.60
ANISOU 1525 C   ALA 221 1920      2238    2908   -82 -207 -362
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ATOM    1526 O    ALA  221 13.763  27.852  56.415 1.000 26.47
ANISOU  1526 O    ALA  221 4127    2641    3289  -1307 894  -9 0 4
ATOM    1527 CB   ALA  221 16.939  28.316  56.104 1.000 19.36
ANISOU  1527 CB   ALA  221 2054    2333    2969   -537 -316 6 6
ATOM    1528 N    VAL  222 14.490  27.385  54.313 1.000 17.35
ANISOU  1528 N    VAL  222 2089    1841    2661   -101 -323 -1 5 4
ATOM    1529 CA   VAL  222 13.556  26.276  54.083 1.000 17.45
ANISOU  1529 CA   VAL  222 1620    2004    3004    -66 -417 1 9
ATOM    1530 C    VAL  222 14.333  24.965  54.077 1.000 15.69
ANISOU  1530 C    VAL  222 1616    1876    2471   -269 -349 -3 2 4
ATOM    1531 O    VAL  222 15.512  24.934  53.716 1.000 17.84
ANISOU  1531 O    VAL  222 1658    1730    3390   -108 -194 4 8
ATOM    1532 CB   VAL  222 12.822  26.433  52.747 1.000 19.60
ANISOU  1532 CB   VAL  222 2267    2202    2979     91 -666  -3 0 4
ATOM    1533 CG1  VAL  222 13.781  26.363  51.563 1.000 21.96
ANISOU  1533 CG1  VAL  222 2252    3113    2977    250 -645 -1 8 2
ATOM    1534 CG2  VAL  222 11.730  25.411  52.490 1.000 22.44
ANISOU  1534 CG2  VAL  222 2923    2537    3067   -497 -898 4 4
ATOM    1535 N    LEU  223 13.789  23.892  54.621 1.000 16.30
ANISOU  1535 N    LEU  223 1792    1694    2706   -239  -93  -5 3 2
ATOM    1536 CA   LEU  223 14.407  22.575  54.579 1.000 15.91
ANISOU  1536 CA   LEU  223 1679    1864    2503    -93 -297 -3 3 3
ATOM    1537 C    LEU  223 14.114  21.908  53.243 1.000 14.86
ANISOU  1537 C    LEU  223 1337    1537    2773   -141 -322 -4 5 8
ATOM    1538 O    LEU  223 12.969  21.888  52.766 1.000 16.23
ANISOU  1538 O    LEU  223 1317    2132    2719     70 -391  -2 8 1
ATOM    1539 CB   LEU  223 13.829  21.779  55.761 1.000 19.97
ANISOU  1539 CB   LEU  223 2740    1945    2901   -121  205  -2 1 2
ATOM    1540 CG   LEU  223 14.298  20.348  55.882 1.000 23.01
ANISOU  1540 CG   LEU  223 2668    1871    4205   -375 -170 9 1
ATOM    1541 CD1  LEU  223 15.797  20.322  56.143 1.000 23.73
ANISOU  1541 CD1  LEU  223 2570    3067    3378     69  135 3 1 6
ATOM    1542 CD2  LEU  223 13.492  19.668  56.979 1.000 35.71
ANISOU  1542 CD2  LEU  223 2813    3296    7459    525   1116 2 3 3 3
ATOM    1543 N    VAL  224 15.115  21.370  52.570 1.000 14.18
ANISOU  1543 N    VAL  224 1383    1446    2560    -28 -320 -2 0 5
ATOM    1544 CA   VAL  224 14.956  20.627  51.330 1.000 14.52
ANISOU  1544 CA   VAL  224 1585    1501    2431    -23 -323 -1 2 7
ATOM    1545 C    VAL  224 15.320  19.160  51.561 1.000 13.59
ANISOU  1545 C    VAL  224 1464    1522    2178     23 -290  -2 5 1
ATOM    1546 O    VAL  224 16.442  18.861  51.981 1.000 15.38
ANISOU  1546 O    VAL  224 1464    1558    2822      0 -505  -3 7 4
ATOM    1547 CB   VAL  224 15.832  21.209  50.222 1.000 14.25
ANISOU  1547 CB   VAL  224 1402    1606    2407    -60 -461 -1 0 8
ATOM    1548 CG1  VAL  224 15.685  20.443  48.906 1.000 16.63
ANISOU  1548 CG1  VAL  224 1682    2164    2474   -159 -408 -4 2 1
ATOM    1549 CG2  VAL  224 15.575  22.687  50.040 1.000 16.40
ANISOU  1549 CG2  VAL  224 1807    1562    2863      6 -509 8 7
ATOM    1550 N    PHE  225 14.340  18.299  51.299 1.000 13.49
ANISOU  1550 N    PHE  225 1494    1526    2106    -66 -353 -1 3 0
ATOM    1551 CA   PHE  225 14.647  16.882  51.162 1.000 14.67
ANISOU  1551 CA   PHE  225 1639    1505    2431   -115  -61  -2 8 3
ATOM    1552 C    PHE  225 14.756  16.533  49.675 1.000 14.27
ANISOU  1552 C    PHE  225 1536    1533    2352    100 -260 -1 9 4
ATOM    1553 O    PHE  225 13.858  16.876  48.893 1.000 16.25
ANISOU  1553 O    PHE  225 1604    2000    2569    296 -311 -8 8
ATOM    1554 CB   PHE  225 13.537  15.999  51.749 1.000 15.57
ANISOU  1554 CB   PHE  225 1613    1563    2740    -25  -46  2 4
ATOM    1555 CG   PHE  225 13.387  15.996  53.257 1.000 17.95
ANISOU  1555 CG   PHE  225 1888    2267    2666   -650 -302 2 0 3
ATOM    1556 CD1  PHE  225 14.409  15.809  54.157 1.000 27.39
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ANISOU	1556	CD1	PHE	225	2740	4234	3431	-910	-1094	900
ATOM	1557	CD2	PHE	225	12.125	15.863	53.820	1.000	21.09	
ANISOU	1557	CD2	PHE	225	2333	2765	2917	-166	399	-527
ATOM	1558	CE1	PHE	225	14.211	15.673	55.521	1.000	26.82	
ANISOU	1558	CE1	PHE	225	3108	3657	3424	-1044	-1241	1128
ATOM	1559	CE2	PHE	225	11.910	15.910	55.186	1.000	21.65	
ANISOU	1559	CE2	PHE	225	2994	2414	2817	623	239	-39
ATOM	1560	CZ	PHE	225	12.958	15.787	56.078	1.000	28.82	
ANISOU	1560	CZ	PHE	225	3705	3716	3531	-832	-663	340
ATOM	1561	N	CYS	226	15.795	15.817	49.266	1.000	12.77	
ANISOU	1561	N	CYS	226	1428	1292	2131	-60	-370	-239
ATOM	1562	CA	CYS	226	15.810	15.180	47.956	1.000	12.99	
ANISOU	1562	CA	CYS	226	1360	1440	2135	12	-355	-207
ATOM	1563	C	CYS	226	14.903	13.956	47.985	1.000	12.37	
ANISOU	1563	C	CYS	226	1533	1212	1955	8	-283	-311
ATOM	1564	O	CYS	226	14.961	13.217	48.974	1.000	15.68	
ANISOU	1564	O	CYS	226	1885	1651	2424	-140	-611	158
ATOM	1565	CB	CYS	226	17.228	14.855	47.527	1.000	13.77	
ANISOU	1565	CB	CYS	226	1410	1627	2193	19	-203	-75
ATOM	1566	SG	CYS	226	18.224	16.367	47.314	1.000	16.37	
ANISOU	1566	SG	CYS	226	1744	1740	2735	-222	-236	-12
ATOM	1567	N	GLY	227	14.150	13.722	46.928	1.000	13.20	
ANISOU	1567	N	GLY	227	1388	1513	2113	-28	-293	-290
ATOM	1568	CA	GLY	227	13.352	12.496	46.899	1.000	12.58	
ANISOU	1568	CA	GLY	227	1279	1631	1872	-83	-438	-255
ATOM	1569	C	GLY	227	13.903	11.541	45.849	1.000	12.54	
ANISOU	1569	C	GLY	227	1518	1279	1965	15	-288	-79
ATOM	1570	O	GLY	227	14.917	11.732	45.152	1.000	13.58	
ANISOU	1570	O	GLY	227	1630	1523	2008	51	-155	82
ATOM	1571	N	ALA	228	13.212	10.400	45.712	1.000	13.02	
ANISOU	1571	N	ALA	228	1490	1306	2151	59	-204	-161
ATOM	1572	CA	ALA	228	13.663	9.321	44.860	1.000	12.41	
ANISOU	1572	CA	ALA	228	1649	1155	1912	-68	-119	-63
ATOM	1573	C	ALA	228	13.706	9.727	43.404	1.000	12.82	
ANISOU	1573	C	ALA	228	1566	1288	2016	97	-223	-5
ATOM	1574	O	ALA	228	14.482	9.132	42.651	1.000	13.64	
ANISOU	1574	O	ALA	228	1717	1462	2004	26	-6	-131
ATOM	1575	CB	ALA	228	12.714	8.121	45.058	1.000	14.56	
ANISOU	1575	CB	ALA	228	1808	1366	2356	-219	358	-243
ATOM	1576	N	ILE	229	12.909	10.695	42.952	1.000	13.61	
ANISOU	1576	N	ILE	229	1340	1391	2441	-43	-289	273
ATOM	1577	CA	ILE	229	13.024	11.131	41.566	1.000	12.93	
ANISOU	1577	CA	ILE	229	1325	1243	2344	-42	-306	173
ATOM	1578	C	ILE	229	14.342	11.864	41.358	1.000	13.17	
ANISOU	1578	C	ILE	229	1327	1364	2311	-47	-191	130
ATOM	1579	O	ILE	229	14.938	11.746	40.262	1.000	14.41	
ANISOU	1579	O	ILE	229	1587	1596	2293	-37	-167	183
ATOM	1580	CB	ILE	229	11.768	11.888	41.103	1.000	13.46	
ANISOU	1580	CB	ILE	229	1470	1631	2015	171	-354	-42
ATOM	1581	CG1	ILE	229	10.599	10.920	40.973	1.000	15.72	
ANISOU	1581	CG1	ILE	229	1218	1936	2817	85	31	118
ATOM	1582	CG2	ILE	229	12.040	12.674	39.808	1.000	14.19	
ANISOU	1582	CG2	ILE	229	1670	1425	2298	76	-364	174
ATOM	1583	CD1	ILE	229	10.745	9.924	39.836	1.000	20.03	
ANISOU	1583	CD1	ILE	229	2129	1814	3667	-208	-385	-488
ATOM	1584	N	ALA	230	14.877	12.575	42.353	1.000	13.38	
ANISOU	1584	N	ALA	230	1252	1378	2454	-97	-176	74
ATOM	1585	CA	ALA	230	16.209	13.185	42.130	1.000	12.30	
ANISOU	1585	CA	ALA	230	1156	1444	2074	66	-97	-108
ATOM	1586	C	ALA	230	17.223	12.033	41.976	1.000	12.89	
ANISOU	1586	C	ALA	230	1491	1327	2079	128	30	-20

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ATOM    1587 O    ALA   230 18.100   12.091  41.146 1.000 13.65
ANISOU  1587 O    ALA   230 1240     1530    2418    108    4   6
ATOM    1588 CB   ALA   230 16.588   14.000  43.345 1.000 13.66
ANISOU  1588 CB   ALA   230 1559     1415    2215   -186  -21  -229
ATOM    1589 N    THR   231 17.143   10.978  42.805 1.000 13.31
ANISOU  1589 N    THR   231 1526     1318    2214    58  -261   - 1
ATOM    1590 CA   THR   231 18.022   9.815   42.659 1.000 13.32
ANISOU  1590 CA   THR   231 1660     1307    2093    78  -302  3 2
ATOM    1591 C    THR   231 17.906   9.224   41.251 1.000 13.27
ANISOU  1591 C    THR   231 1300     1631    2111    205  -211 3
ATOM    1592 O    THR   231 18.932   8.974   40.620 1.000 15.51
ANISOU  1592 O    THR   231 1468     1759    2667    245   58  -170
ATOM    1593 CB   THR   231 17.656   8.751   43.688 1.000 13.03
ANISOU  1593 CB   THR   231 1500     1302    2151    46  -166  1 2
ATOM    1594 OG1  THR   231 17.530   9.313   44.995 1.000 14.70
ANISOU  1594 OG1  THR   231 1742     1614    2230   -99    32  - 14
ATOM    1595 CG2  THR   231 18.698   7.621   43.697 1.000 13.69
ANISOU  1595 CG2  THR   231 1449     1419    2335    113  -211 19 7
ATOM    1596 N    LEU   232 16.665   9.049   40.796 1.000 13.43
ANISOU  1596 N    LEU   232 1447     1384    2271    75  -404   - 27
ATOM    1597 CA   LEU   232 16.446   8.396   39.527 1.000 14.11
ANISOU  1597 CA   LEU   232 1809     1226    2326    80  -468  4 9
ATOM    1598 C    LEU   232 16.975   9.248   38.381 1.000 15.53
ANISOU  1598 C    LEU   232 1968     1557    2376    209   -3 9 0
ATOM    1599 O    LEU   232 17.749   8.808   37.504 1.000 17.16
ANISOU  1599 O    LEU   232 2024     1949    2546    107  -116 - 5 19
ATOM    1600 CB   LEU   232 14.940   8.135   39.368 1.000 14.47
ANISOU  1600 CB   LEU   232 1692     1630    2175    72  -396   -161
ATOM    1601 CG   LEU   232 14.525   7.307   38.155 1.000 15.89
ANISOU  1601 CG   LEU   232 1941     1768    2329    120  -470 - 3 03
ATOM    1602 CD1  LEU   232 15.118   5.920   38.202 1.000 23.19
ANISOU  1602 CD1  LEU   232 3565     2020    3228    743  -1110 - 85 1
ATOM    1603 CD2  LEU   232 13.003   7.190   38.126 1.000 19.46
ANISOU  1603 CD2  LEU   232 2006     2262    3126   -470  -523 - 66
ATOM    1604 N    VAL   233 16.539   10.514  38.299 1.000 13.73
ANISOU  1604 N    VAL   233 1736     1454    2025   - 7  -263  193
ATOM    1605 CA   VAL   233 16.893   11.317  37.117 1.000 13.84
ANISOU  1605 CA   VAL   233 1674     1658    1926    141   -73  1 0 7
ATOM    1606 C    VAL   233 18.407   11.510  37.025 1.000 14.08
ANISOU  1606 C    VAL   233 1716     1674    1958    72  -46 113
ATOM    1607 O    VAL   233 18.940   11.587  35.910 1.000 16.65
ANISOU  1607 O    VAL   233 1923     2325    2079    38  109 4 01
ATOM    1608 CB   VAL   233 16.098   12.626  37.062 1.000 14.69
ANISOU  1608 CB   VAL   233 1680     1695    2206    141  -165 333
ATOM    1609 CG1  VAL   233 16.529   13.650  38.113 1.000 15.70
ANISOU  1609 CG1  VAL   233 1615     1654    2698    34  156  - 28
ATOM    1610 CG2  VAL   233 16.117   13.206  35.647 1.000 16.43
ANISOU  1610 CG2  VAL   233 1740     2041    2459    251   117  5 9 6
ATOM    1611 N    THR   234 19.100   11.594  38.175 1.000 14.23
ANISOU  1611 N    THR   234 1599     1724    2083    146  -110 235
ATOM    1612 CA   THR   234 20.524   11.908  38.148 1.000 16.14
ANISOU  1612 CA   THR   234 1664     1868    2602    63  -171   - 49
ATOM    1613 C    THR   234 21.346   10.621  38.006 1.000 17.09
ANISOU  1613 C    THR   234 1717     1865    2912    146   211   - 51
ATOM    1614 O    THR   234 22.558   10.644  38.139 1.000 17.25
ANISOU  1614 O    THR   234 1776     1951    2828    108   200  229
ATOM    1615 CB   THR   234 21.030   12.681  39.373 1.000 15.29
ANISOU  1615 CB   THR   234 1667     1502    2642   -46  -149 163
ATOM    1616 OG1  THR   234 20.849   11.819  40.522 1.000 15.45
ANISOU  1616 OG1  THR   234 1659     1708    2502   -80   59  4 4
ATOM    1617 CG2  THR   234 20.291   13.978  39.597 1.000 16.61
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ANISOU 1617 CG2 THR 234 1564  1672  3077    3  -34 -42
ATOM   1618 N   GLY 235 20.712 9.441 37.833 1.000 15.80
ANISOU 1618 N   GLY 235 1905  1914  2564  193   29 -219
ATOM   1619 CA  GLY 235 21.484 8.209 37.792 1.000 17.10
ANISOU 1619 CA  GLY 235 2049  1861  2586  133  223 -488
ATOM   1620 C   GLY 235 22.225 7.931 39.083 1.000 18.06
ANISOU 1620 C   GLY 235 2046  2049  2768  419  499  303
ATOM   1621 O   GLY 235 23.285 7.289 39.010 1.000 21.26
ANISOU 1621 O   GLY 235 2167  2606  3303  679  343  -74
ATOM   1622 N   GLY 236 21.602 8.149 40.237 1.000 15.17
ANISOU 1622 N   GLY 236 1663  1901  2582   36  291 305
ATOM   1623 CA  GLY 236 22.080 7.673 41.520 1.000 17.27
ANISOU 1623 CA  GLY 236 2135  1671  2754  225   28 229
ATOM   1624 C   GLY 236 23.033 8.639 42.194 1.000 16.88
ANISOU 1624 C   GLY 236 1880  1890  2644  204  100 222
ATOM   1625 O   GLY 236 23.69? 8.272 43.193 1.000 19.42
ANISOU 1625 O   GLY 236 2165  2399  2814  314  -90 419
ATOM   1626 N   GLN 237 23.134 9.890 41.746 1.000 16.99
ANISOU 1626 N   GLN 237 1647  1851  2957  213 -213 167
ATOM   1627 CA  GLN 237 24.074 10.849 42.298 1.000 15.75
ANISOU 1627 CA  GLN 237 1608  2004  2752   72 177 9 8
ATOM   1628 C   GLN 237 23.481 11.604 43.483 1.000 15.64
ANISOU 1628 C   GLN 237 1404  2136  2402  231 -146 200
ATOM   1629 O   GLN 237 24.183 12.382 44.164 1.000 18.17
ANISOU 1629 O   GLN 237 1581  2508  2817 -227   -6 -46
ATOM   1630 CB  GLN 237 24.456 11.855 41.217 1.000 17.17
ANISOU 1630 CB  GLN 237 1912  2080  2532   71 141 -7
ATOM   1631 CG  GLN 237 25.304 11.221 40.115 1.000 17.64
ANISOU 1631 CG  GLN 237 1850  2410  2441  226   95 -30
ATOM   1632 CD  GLN 237 25.721 12.302 39.137 1.000 19.72
ANISOU 1632 CD  GLN 237 1680  2833  2979  104  317 307
ATOM   1633 OE1 GLN 237 26.602 13.110 39.436 1.000 24.27
ANISOU 1633 OE1 GLN 237 1841  3145  4234 -213 -187 809
ATOM   1634 NE2 GLN 237 24.986 12.399 38.027 1.000 18.53
ANISOU 1634 NE2 GLN 237 2007  2298  2735  432  374 202
ATOM   1635 N   VAL 238 22.221 11.359 43.807 1.000 14.75
ANISOU 1635 N   VAL 238 1563  1804  2237  -32  -54 4 3
ATOM   1636 CA  VAL 238 21.533 12.075 44.862 1.000 14.41
ANISOU 1636 CA  VAL 238 1535  1553  2388    0  -44 3 2
ATOM   1637 C   VAL 238 20.861 11.060 45.781 1.000 13.56
ANISOU 1637 C   VAL 238 1414  1392  2346   82   55 -149
ATOM   1638 O   VAL 238 20.136 10.174 45.302 1.000 15.87
ANISOU 1638 O   VAL 238 1655  1639  2737 -218 -285 -22
ATOM   1639 CB  VAL 238 20.467 13.061 44.309 1.000 14.73
ANISOU 1639 CB  VAL 238 1817  1626  2152   35 -437 -95
ATOM   1640 CG1 VAL 238 19.805 13.764 45.489 1.000 15.70
ANISOU 1640 CG1 VAL 238 1965  1490  2510  174 -524 -423
ATOM   1641 CG2 VAL 238 21.064 13.994 43.280 1.000 16.82
ANISOU 1641 CG2 VAL 238 1862  1718  2812  -60 -378 222
ATOM   1642 N   LYS 239 21.119 11.153 47.071 1.000 14.47
ANISOU 1642 N   LYS 239 1704  1474  2318   14 -40 1 2
ATOM   1643 CA  LYS 239 20.470 10.360 48.104 1.000 14.43
ANISOU 1643 CA  LYS 239 1460  1617  2406  106 -168 179
ATOM   1644 C   LYS 239 19.048 10.852 48.409 1.000 14.82
ANISOU 1644 C   LYS 239 1533  1456  2642  102  -53 232
ATOM   1645 O   LYS 239 18.839 12.067 48.457 1.000 14.74
ANISOU 1645 O   LYS 239 1841  1442  2318  158 -275 190
ATOM   1646 CB  LYS 239 21.320 10.435 49.385 1.000 16.40
ANISOU 1646 CB  LYS 239 1995  1712  2527  243 -543 252
ATOM   1647 CG  LYS 239 20.767 9.549 50.498 1.000 16.65
ANISOU 1647 CG  LYS 239 1954  1759  2614  -58 -721 244
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ATOM    1648 CD  LYS   239 21.738  9.511  51.683 1.000 19.76
ANISOU  1648 CD  LYS   239 2954    1820   2732   -123  -1234  363
ATOM    1649 CE  LYS   239 21.107  8.835  52.896 1.000 22.58
ANISOU  1649 CE  LYS   239 3331    2164   3086   -652  -1502  863
ATOM    1650 NZ  LYS   239 21.904  8.883  54.145 1.000 23.13
ANISOU  1650 NZ  LYS   239 2817    3360   2612   -471  -943   287
ATOM    1651 N   ALA   240 18.140  9.892  48.659 1.000 14.35
ANISOU  1651 N   ALA   240 1429    1607   2418   -156  -334  - 61
ATOM    1652 CA  ALA   240 16.791  10.192 49.145 1.000 13.98
ANISOU  1652 CA  ALA   240 1463    1635   2210   -151  -335  - 10
ATOM    1653 C   ALA   240 16.728  9.776  50.605 1.000 13.44
ANISOU  1653 C   ALA   240 1439    1388   2279    77   -450   22
ATOM    1654 O   ALA   240 16.514  8.592  50.913 1.000 16.32
ANISOU  1654 O   ALA   240 1932    1567   2699   -215  -673  314
ATOM    1655 CB  ALA   240 15.712  9.565  48.268 1.000 15.21
ANISOU  1655 CB  ALA   240 1510    1962   2306   -104  -387  -307
ATOM    1656 N   PRO   241 16.907  10.701 51.546 1.000 14.23
ANISOU  1656 N   PRO   241 1634    1551   2221   -87   -292  7 1
ATOM    1657 CA  PRO   241 17.035  10.251 52.940 1.000 14.68
ANISOU  1657 CA  PRO   241 1718    1681   2180   -350  -174  - 30
ATOM    1658 C   PRO   241 15.693  9.961  53.579 1.000 13.89
ANISOU  1658 C   PRO   241 1659    1581   2039   -107  -207  -74
ATOM    1659 O   PRO   241 14.629  10.527 53.261 1.000 17.06
ANISOU  1659 O   PRO   241 1698    1946   2838    17   -254  146
ATOM    1660 CB  PRO   241 17.689  11.462 53.619 1.000 16.63
ANISOU  1660 CB  PRO   241 2162    1657   2501   -460  -487  5 5
ATOM    1661 CG  PRO   241 17.138  12.651 52.826 1.000 16.56
ANISOU  1661 CG  PRO   241 2433    1601   2258   -367  -274  3 1
ATOM    1662 CD  PRO   241 17.164  12.140 51.409 1.000 14.92
ANISOU  1662 CD  PRO   241 1841    1490   2339   -215  -186  - 66
ATOM    1663 N   ARG   242 15.740  9.049  54.544 1.000 15.74
ANISOU  1663 N   ARG   242 1914    1853   2212   -381  -308  204
ATOM    1664 CA  ARG   242 14.574  8.772  55.376 1.000 15.50
ANISOU  1664 CA  ARG   242 1955    1863   2073   -236  -291  180
ATOM    1665 C   ARG   242 14.406  9.841  56.437 1.000 16.60
ANISOU  1665 C   ARG   242 1889    2011   2407   -120  -411  - 5 1
ATOM    1666 O   ARG   242 15.372  10.416 56.994 1.000 18.31
ANISOU  1666 O   ARG   242 2041    2186   2732   -216  -559  -180
ATOM    1667 CB  ARG   242 14.728  7.419  56.085 1.000 18.38
ANISOU  1667 CB  ARG   242 2920    1810   2253   -486  -391  269
ATOM    1668 CG  ARG   242 14.564  6.273  55.094 1.000 18.42
ANISOU  1668 CG  ARG   242 2372    1873   2755   -88   162   -155
ATOM    1669 CD  ARG   242 14.854  4.935  55.796 1.000 23.07
ANISOU  1669 CD  ARG   242 3380    2022   3366    470  -483  -217
ATOM    1670 NE  ARG   242 16.334  4.954  55.991 1.000 26.69
ANISOU  1670 NE  ARG   242 3498    2727   3916    444  -829  4 7
ATOM    1671 CZ  ARG   242 16.941  3.921  56.584 1.000 27.19
ANISOU  1671 CZ  ARG   242 3166    2879   4284   -297  -1143  802
ATOM    1672 NH1 ARG   242 16.157  2.913  56.989 1.000 33.14
ANISOU  1672 NH1 ARG   242 3810    3235   5546   -316  528   726
ATOM    1673 NH2 ARG   242 18.241  3.889  56.779 1.000 31.13
ANISOU  1673 NH2 ARG   242 3043    2925   5859    227  -769  484
ATOM    1674 N   HIS   243 13.188  10.057 56.872 1.000 17.55
ANISOU  1674 N   HIS   243 1979    2233   2457   -165  -173  - 74
ATOM    1675 CA  HIS   243 12.913  11.050 57.914 1.000 17.84
ANISOU  1675 CA  HIS   243 2186    2139   2452   -260  -123  - 75
ATOM    1676 C   HIS   243 11.644  10.627 58.643 1.000 17.52
ANISOU  1676 C   HIS   243 2102    2084   2470   -248  -164  -325
ATOM    1677 O   HIS   243 10.870  9.803  58.132 1.000 20.23
ANISOU  1677 O   HIS   243 2226    2593   2868   -551  -323  -392
ATOM    1678 CB  HIS   243 12.865  12.456 57.324 1.000 19.74
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ANISOU  1678 CB   HIS   243 2770     2248     2482      -188  -106  8 3
ATOM    1679 CG   HIS   243 11.922   12.630   56.187 1.000 22.60
ANISOU  1679 CG   HIS   243 3449     2513     2624      164   -382  0
ATOM    1680 ND1  HIS   243 12.209   12.299   54.879 1.000 25.87
ANISOU  1680 ND1  HIS   243 4780     2575     2473      -609  -403  5 3
ATOM    1681 CD2  HIS   243 10.633   13.034   56.172 1.000 29.11
ANISOU  1681 CD2  HIS   243 3220     4490     3348      121   -421 1630
ATOM    1682 CE1  HIS   243 11.182   12.573   54.109 1.000 32.92
ANISOU  1682 CE1  HIS   243 5835     3672     3001      -1102 -1367 6 89
ATOM    1683 NE2  HIS   243 10.214   13.012   54.875 1.000 36.95
ANISOU  1683 NE2  HIS   243 5719     4201     4119      1019  -2016 9 87
ATOM    1684 N    HIS   244 11.437   11.194   59.831 1.000 18.87
ANISOU  1684 N    HIS   244 2523     2477     2171      -88   -141 -1 17
ATOM    1685 CA   HIS   244 10.302   10.801   60.649 1.000 20.83
ANISOU  1685 CA   HIS   244 2802     2485     2628      171   251  2 72
ATOM    1686 C    HIS   244 9.927    11.968   61.551 1.000 20.33
ANISOU  1686 C    HIS   244 1803     2969     2953      -31   -78  -2 73
ATOM    1687 O    HIS   244 10.482   13.073   61.510 1.000 21.71
ANISOU  1687 O    HIS   244 2057     3418     2774      -535  145  -8 53
ATOM    1688 CB   HIS   244 10.714   9.557    61.468 1.000 24.38
ANISOU  1688 CB   HIS   244 4066     2644     2553      -76   -390 4 41
ATOM    1689 CG   HIS   244 11.859   9.725    62.423 1.000 28.34
ANISOU  1689 CG   HIS   244 4158     3498     3113      696   -727 -8 9
ATOM    1690 ND1  HIS   244 13.132   9.205    62.268 1.000 32.35
ANISOU  1690 ND1  HIS   244 4012     4471     3808      548   -485 -8 50
ATOM    1691 CD2  HIS   244 11.928   10.391   63.609 1.000 25.21
ANISOU  1691 CD2  HIS   244 2937     4137     2505      -373  45  2 19
ATOM    1692 CE1  HIS   244 13.887   9.531    63.312 1.000 31.71
ANISOU  1692 CE1  HIS   244 4157     4277     3613      1224  -749 -5 18
ATOM    1693 NE2  HIS   244 13.146   10.263   64.150 1.000 24.52
ANISOU  1693 NE2  HIS   244 3165     3517     2633      94  -82  4 92
ATOM    1694 N    VAL   245 8.890    11.687   62.349 1.000 23.87
ANISOU  1694 N    VAL   245 2627     3119     3322      -251  531  -3 10
ATOM    1695 CA   VAL   245 8.473    12.691   63.349 1.000 24.85
ANISOU  1695 CA   VAL   245 2785     3770     2888      481   149  -2 93
ATOM    1696 C    VAL   245 8.624    12.079   64.735 1.000 26.03
ANISOU  1696 C    VAL   245 3220     3558     3112      -289  179  8 9
ATOM    1697 O    VAL   245 8.023    11.025   64.969 1.000 27.98
ANISOU  1697 O    VAL   245 3120     3085     4428      42  295 -5 9
ATOM    1698 CB   VAL   245 7.020    13.114   63.099 1.000 26.02
ANISOU  1698 CB   VAL   245 2621     3489     3777      94  -103  -5 69
ATOM    1699 CG1  VAL   245 6.586    14.114   64.161 1.000 28.06
ANISOU  1699 CG1  VAL   245 2717     3330     4614      159   746  -4 85
ATOM    1700 CG2  VAL   245 6.927    13.705   61.680 1.000 30.51
ANISOU  1700 CG2  VAL   245 3564     3809     4220      1264  -305 -3 3
ATOM    1701 N    ALA   246 9.399    12.696   65.603 1.000 28.08
ANISOU  1701 N    ALA   246 4338     3787     2543      -850  250  2 54
ATOM    1702 CA   ALA   246 9.567    12.316   67.003 1.000 27.45
ANISOU  1702 CA   ALA   246 4363     3360     2707      292   275  3 73
ATOM    1703 C    ALA   246 8.356    12.740   67.833 1.000 32.68
ANISOU  1703 C    ALA   246 4915     4473     3031      98 880 1 97
ATOM    1704 O    ALA   246 7.774    13.791   67.563 1.000 29.54
ANISOU  1704 O    ALA   246 3522     4283     3417      -224  875  -3 29
ATOM    1705 CB   ALA   246 10.819   13.010   67.542 1.000 30.33
ANISOU  1705 CB   ALA   246 4564     3949     3011      615   -221 -4 22
ATOM    1706 N    ALA   247 8.048    11.958   68.849 1.000 34.09
ANISOU  1706 N    ALA   247 4483     5156     3311      -1190 466  3 93
ATOM    1707 CA   ALA   247 7.036    12.190   69.859 1.000 34.23
ANISOU  1707 CA   ALA   247 4188     5627     3189      -1215 315  5 15
ATOM    1708 C    ALA   247 7.609    12.910   71.081 1.000 33.31
ANISOU  1708 C    ALA   247 5419     4684     2555      249   -506 1147
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ATOM    1709  O    ALA  247  8.733   12.708   71.523 1.000 38.23
ANISOU  1709  O    ALA  247  5787    4478     4259    -378 -1519  1230
ATOM    1710  CB   ALA  247  6.383   10.881   70.314 1.000 47.11
ANISOU  1710  CB   ALA  247  8374    6726     2801   -2800  1464  686
ATOM    1711  N    PRO  248  6.817   13.851   71.577 1.000 42.28
ANISOU  1711  N    PRO  248  5771    5458     4836    -300   933  -97
ATOM    1712  CA   PRO  248  7.256   14.581   72.773 1.000 44.85
ANISOU  1712  CA   PRO  248  7568    5478     3996    -645  1413  214
ATOM    1713  C    PRO  248  7.161   13.618   73.948 1.000 49.25
ANISOU  1713  C    PRO  248  7978    5660     5075   -1446   552  985
ATOM    1714  O    PRO  248  6.251   12.794   74.014 1.000 45.48
ANISOU  1714  O    PRO  248  7651    5391     4237   -1127  2573  -796
ATOM    1715  CB   PRO  248  6.196   15.674   72.897 1.000 49.75
ANISOU  1715  CB   PRO  248  8563    4816     5523    -513  1238  -138
ATOM    1716  CG   PRO  248  4.973   15.053   72.299 1.000 50.89
ANISOU  1716  CG   PRO  248  7228    5564     6545    -108  2210 -1064
ATOM    1717  CD   PRO  248  5.489   14.272   71.114 1.000 44.69
ANISOU  1717  CD   PRO  248  6395    4579     6006     937   953  -577
ATOM    1718  N    ARG  249  8.109   13.683   74.883 1.000 48.76
ANISOU  1718  N    ARG  249  9141    6341     3045   -1317  1069  -477
ATOM    1719  CA   ARG  249  7.865   12.783   76.024 1.000 55.51
ANISOU  1719  CA   ARG  249  10023   6914     4156   -1098   895  566
ATOM    1720  C    ARG  249  6.844   13.466   76.916 1.000 46.09
ANISOU  1720  C    ARG  249  5561    8382     3568   -2484    -7 1237
ATOM    1721  O    ARG  249  6.244   12.915   77.831 1.000 56.25
ANISOU  1721  O    ARG  249  7572    6368     7433    -377  1799 3995
ATOM    1722  CB   ARG  249  9.177   12.459   76.721 1.000 55.24
ANISOU  1722  CB   ARG  249  8950    7715     4326     705  2864 1270
ATOM    1723  CG   ARG  249  9.915   11.278   76.110 1.000 71.04
ANISOU  1723  CG   ARG  249  12881   7330     6779    1135  3707  622
ATOM    1724  CD   ARG  249 10.403   10.303   77.165 1.000 72.89
ANISOU  1724  CD   ARG  249  11721   7991     7984    2171  2723  409
ATOM    1725  NE   ARG  249 11.124    9.162   76.580 1.000 70.73
ANISOU  1725  NE   ARG  249  8627    9977     8271    2362  2650  -266
ATOM    1726  CZ   ARG  249 12.039    8.493   77.282 1.000 72.71
ANISOU  1726  CZ   ARG  249  10269   9417     7942    2304  2153  133
ATOM    1727  NH1  ARG  249 12.297    8.893   78.521 1.000 89.50
ANISOU  1727  NH1  ARG  249  22286   6161     5559    2015  1622 3874
ATOM    1728  NH2  ARG  249 12.682    7.462   76.761 1.000 67.68
ANISOU  1728  NH2  ARG  249  5358   10062    10295    1004  3886  221
ATOM    1729  N    ALA  254  1.981   18.918   75.430 1.000 85.24
ANISOU  1729  N    ALA  254  15501   7922     8964   -4581 -1437 2347
ATOM    1730  CA   ALA  254  2.287   20.081   76.257 1.000 76.08
ANISOU  1730  CA   ALA  254  12510   8110     8286   -3993  1617 1592
ATOM    1731  C    ALA  254  2.943   21.216   75.489 1.000 60.91
ANISOU  1731  C    ALA  254  8383    5719     9040    -506  2886 1312
ATOM    1732  O    ALA  254  4.174   21.309   75.487 1.000 72.37
ANISOU  1732  O    ALA  254  8056    8109    11332    1602  4553 3381
ATOM    1733  CB   ALA  254  3.264   19.667   77.351 1.000 60.48
ANISOU  1733  CB   ALA  254  12589   7262     3131    -866  4570 -1112
ATOM    1734  N    GLY  255  2.200   22.108   74.846 1.000 54.40
ANISOU  1734  N    GLY  255  8029    5451     7190     594  2922  -940
ATOM    1735  CA   GLY  255  2.880   23.171   74.098 1.000 40.05
ANISOU  1735  CA   GLY  255  5181    4570     5465    1424   836  -921
ATOM    1736  C    GLY  255  3.640   22.565   72.921 1.000 38.82
ANISOU  1736  C    GLY  255  4227    4772     5749     557   702 -1561
ATOM    1737  O    GLY  255  4.580   23.163   72.398 1.000 39.96
ANISOU  1737  O    GLY  255  2978    6491     5715    -128  -136 -2226
ATOM    1738  N    SER  256  3.164   21.387   72.509 1.000 37.29
ANISOU  1738  N    SER  256  5047    4594     4527     389    11  -853
ATOM    1739  CA   SER  256  3.738   20.606   71.429 1.000 35.71
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ANISOU 1739 CA   SER  256 4737    4533    4299    560   -501 -919
ATOM   1740 C    SER  256 2.983  20.742  70.118 1.000 34.93
ANISOU 1740 C    SER  256 4584    4669    4019    -98   -85  9 1
ATOM   1741 O    SER  256 3.251  20.000  69.162 1.000 33.92
ANISOU 1741 O    SER  256 3575    6107    3207    503   304  3 7 7
ATOM   1742 CB   SER  256 3.845  19.136  71.853 1.000 30.17
ANISOU 1742 CB   SER  256 3125    4830    3509    624   212  -492
ATOM   1743 OG   SER  256 2.688  18.752  72.601 1.000 61.15
ANISOU 1743 OG   SER  256 2987    8497   11750    451   1943 2630
ATOM   1744 N    SER  257 2.065  21.700  70.030 1.000 35.54
ANISOU 1744 N    SER  257 4037    5989    3479    347   242  - 86
ATOM   1745 CA   SER  257 1.379  21.993  68.767 1.000 30.95
ANISOU 1745 CA   SER  257 2824    5827    3109    170   672  -509
ATOM   1746 C    SER  257 2.378  22.538  67.760 1.000 30.63
ANISOU 1746 C    SER  257 3181    5524    2934   -476   765  -1297
ATOM   1747 O    SER  257 3.359  23.159  68.199 1.000 34.70
ANISOU 1747 O    SER  257 3500    6070    3616   -229   603  -1516
ATOM   1748 CB   SER  257 0.331  23.088  69.036 1.000 38.70
ANISOU 1748 CB   SER  257 3085    6518    5103    796   1381 4 3 5
ATOM   1749 OG   SER  257 0.801  24.361  68.601 1.000 65.12
ANISOU 1749 OG   SER  257 8002    5175   11565   -999  -3375 3 8 3
ATOM   1750 N    ARG  258 2.119  22.384  66.471 1.000 30.51
ANISOU 1750 N    ARG  258 3668    5068    2855   -332   677  - 995
ATOM   1751 CA   ARG  258 2.997  22.819  65.396 1.000 28.15
ANISOU 1751 CA   ARG  258 3100    4620    2976   -106   358  - 544
ATOM   1752 C    ARG  258 2.198  22.913  64.096 1.000 25.64
ANISOU 1752 C    ARG  258 3488    3381    2872   -676   273  - 904
ATOM   1753 O    ARG  258 1.132  22.294  63.981 1.000 24.93
ANISOU 1753 O    ARG  258 3162    3240    3070   -441   478  - 560
ATOM   1754 CB   ARG  258 4.175  21.873  65.154 1.000 27.21
ANISOU 1754 CB   ARG  258 3158    4041    3141   -446   313  -1352
ATOM   1755 CG   ARG  258 3.861  20.508  64.570 1.000 30.90
ANISOU 1755 CG   ARG  258 4782    3429    3531   -737  -738 -389
ATOM   1756 CD   ARG  258 5.039  19.537  64.769 1.000 36.65
ANISOU 1756 CD   ARG  258 5937    3466    4523    106   477  3 0 6
ATOM   1757 NE   ARG  258 4.597  18.176  64.411 1.000 32.42
ANISOU 1757 NE   ARG  258 3372    3858    5089    -85   -274 5 2 8
ATOM   1758 CZ   ARG  258 4.633  17.777  63.143 1.000 37.32
ANISOU 1758 CZ   ARG  258 5670    2958    5553    155   680  4 3
ATOM   1759 NH1  ARG  258 5.075  18.622  62.217 1.000 29.98
ANISOU 1759 NH1  ARG  258 3077    3435    4881   -150   -211 -103
ATOM   1760 NH2  ARG  258 4.210  16.566  62.824 1.000 38.66
ANISOU 1760 NH2  ARG  258 5812    3151    5724   -190  -1632 865
ATOM   1761 N    THR  259 2.806  23.572  63.120 1.000 23.62
ANISOU 1761 N    THR  259 2625    3578    2771   -519   315  -1037
ATOM   1762 CA   THR  259 2.337  23.482  61.730 1.000 21.97
ANISOU 1762 CA   THR  259 2614    2934    2800    -36   247  -1041
ATOM   1763 C    THR  259 3.528  23.197  60.808 1.000 19.76
ANISOU 1763 C    THR  259 2257    2663    2587    -38   21 -699
ATOM   1764 O    THR  259 4.698  23.411  61.159 1.000 21.13
ANISOU 1764 O    THR  259 2464    3096    2468   -495   -10  - 286
ATOM   1765 CB   THR  259 1.682  24.793  61.278 1.000 24.04
ANISOU 1765 CB   THR  259 2125    3084    3927    70  -157  -1229
ATOM   1766 OG1  THR  259 2.697  25.790  61.041 1.000 23.14
ANISOU 1766 OG1  THR  259 2297    2848    3648    196   -142 -829
ATOM   1767 CG2  THR  259 0.760  25.408  62.331 1.000 25.17
ANISOU 1767 CG2  THR  259 2941    3229    3393    726   264  -136
ATOM   1768 N    SER  260 3.234  22.706  59.600 1.000 20.41
ANISOU 1768 N    SER  260 2386    2762    2609    -61   74 -806
ATOM   1769 CA   SER  260 4.225  22.515  58.551 1.000 19.33
ANISOU 1769 CA   SER  260 2488    2459    2399    192    8  - 344
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ATOM	1770	C	SER	260	3.587	22.871	57.210	1.000	18.78			
ANISOU	1770	C	SER	260	1996	2544	2595	-379	-264	-311		
ATOM	1771	O	SER	260	2.375	22.758	56.988	1.000	21.20			
ANISOU	1771	O	SER	260	1917	2448	3689	-75	-269	-573		
ATOM	1772	CB	SER	260	4.738	21.076	58.480	1.000	20.28			
ANISOU	1772	CB	SER	260	2491	2458	2755	160	-101	-495		
ATOM	1773	OG	SER	260	3.656	20.197	58.227	1.000	22.70			
ANISOU	1773	OG	SER	260	2758	2574	3294	-113	-234	-169		
ATOM	1774	N	SER	261	4.474	23.329	56.330	1.000	18.79			
ANISOU	1774	N	SER	261	2189	2215	2737	-55	-92	3	5	
ATOM	1775	CA	SER	261	4.148	23.585	54.929	1.000	16.88			
ANISOU	1775	CA	SER	261	2074	1718	2622	22	-117	-404		
ATOM	1776	C	SER	261	5.066	22.672	54.106	1.000	17.25			
ANISOU	1776	C	SER	261	1720	1833	3000	101	-350	-491		
ATOM	1777	O	SER	261	6.272	22.876	54.173	1.000	19.96			
ANISOU	1777	O	SER	261	1712	2417	3456	50	-483	-781		
ATOM	1778	CB	SER	261	4.471	25.028	54.503	1.000	19.95			
ANISOU	1778	CB	SER	261	2903	1675	3002	164	-113	-135		
ATOM	1779	OG	SER	261	4.404	25.127	53.107	1.000	35.64			
ANISOU	1779	OG	SER	261	5435	4814	3293	-1089	-766	1263		
ATOM	1780	N	VAL	262	4.467	21.722	53.435	1.000	15.56			
ANISOU	1780	N	VAL	262	1751	2021	2140	-75	-40	-436		
ATOM	1781	CA	VAL	262	5.247	20.713	52.711	1.000	15.41			
ANISOU	1781	CA	VAL	262	1871	1938	2048	43	21	-196		
ATOM	1782	C	VAL	262	4.914	20.874	51.242	1.000	14.05			
ANISOU	1782	C	VAL	262	1460	1784	2095	-13	29	-144		
ATOM	1783	O	VAL	262	3.759	20.712	50.844	1.000	15.45			
ANISOU	1783	O	VAL	262	1488	1900	2481	-175	-94	-191		
ATOM	1784	CB	VAL	262	4.902	19.307	53.253	1.000	16.87			
ANISOU	1784	CB	VAL	262	2144	2005	2260	165	-164	2	3	
ATOM	1785	CG1	VAL	262	5.567	18.275	52.364	1.000	20.01			
ANISOU	1785	CG1	VAL	262	2433	2006	3165	4	-191	-637		
ATOM	1786	CG2	VAL	262	5.335	19.200	54.715	1.000	18.63			
ANISOU	1786	CG2	VAL	262	2390	2242	2446	147	-397	175		
ATOM	1787	N	PHE	263	5.894	21.163	50.412	1.000	13.73			
ANISOU	1787	N	PHE	263	1497	1573	2148	5	-64	186		
ATOM	1788	CA	PHE	263	5.762	21.411	48.994	1.000	13.04			
ANISOU	1788	CA	PHE	263	1654	1196	2105	-12	-193	113		
ATOM	1789	C	PHE	263	6.479	20.253	48.284	1.000	13.56			
ANISOU	1789	C	PHE	263	1432	1351	2370	-175	-98	-87		
ATOM	1790	O	PHE	263	7.732	20.177	48.281	1.000	13.83			
ANISOU	1790	O	PHE	263	1415	1437	2403	-82	-299	-104		
ATOM	1791	CB	PHE	263	6.364	22.770	48.594	1.000	13.50			
ANISOU	1791	CB	PHE	263	1658	1374	2098	-295	-97	3	4	
ATOM	1792	CG	PHE	263	6.062	23.148	47.135	1.000	13.34			
ANISOU	1792	CG	PHE	263	1616	1358	2096	-159	-111	8	2	
ATOM	1793	CD1	PHE	263	6.750	22.635	46.051	1.000	14.95			
ANISOU	1793	CD1	PHE	263	1977	1547	2156	-354	-131	-384		
ATOM	1794	CD2	PHE	263	5.005	24.048	46.883	1.000	15.37			
ANISOU	1794	CD2	PHE	263	1549	1557	2735	-139	-264	3	03	
ATOM	1795	CE1	PHE	263	6.468	22.945	44.720	1.000	14.58			
ANISOU	1795	CE1	PHE	263	1721	1621	2196	-242	71	-144		
ATOM	1796	CE2	PHE	263	4.703	24.366	45.566	1.000	14.71			
ANISOU	1796	CE2	PHE	263	1482	1428	2680	-20	-261	1	37	
ATOM	1797	CZ	PHE	263	5.383	23.809	44.479	1.000	16.55			
ANISOU	1797	CZ	PHE	263	1935	1492	2862	-152	29	1	4	
ATOM	1798	N	PHE	264	5.721	19.405	47.588	1.000	12.07			
ANISOU	1798	N	PHE	264	1277	1343	1967	-66	-49	1	9	
ATOM	1799	CA	PHE	264	6.267	18.328	46.769	1.000	11.90			
ANISOU	1799	CA	PHE	264	1177	1289	2058	-129	34	-2	1	
ATOM	1800	C	PHE	264	6.440	18.775	45.314	1.000	11.76			

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ANISOU 1800 C   PHE 264 1206  1258  2004  -121  -42  8
ATOM   1801 O   PHE 264 5.418 19.097 44.683 1.000 12.55
ANISOU 1801 O   PHE 264 1165  1473  2133  -77  -120  4  6
ATOM   1802 CB  PHE 264 5.346 17.099 46.773 1.000 12.39
ANISOU 1802 CB  PHE 264 1101  1498  2110  -304  -42  6  3
ATOM   1803 CG  PHE 264 5.022 16.558 48.150 1.000 13.97
ANISOU 1803 CG  PHE 264 1647  1465  2197  -290  13 121
ATOM   1804 CD1 PHE 264 5.960 15.848 48.852 1.000 17.07
ANISOU 1804 CD1 PHE 264 2039  1976  2471  -422  -410 49 7
ATOM   1805 CD2 PHE 264 3.747 16.679 48.668 1.000 17.41
ANISOU 1805 CD2 PHE 264 1835  2359  2419  -440  433  1 12
ATOM   1806 CE1 PHE 264 5.661 15.247 50.053 1.000 20.59
ANISOU 1806 CE1 PHE 264 2616  2710  2496  -556  -425 72 5
ATOM   1807 CE2 PHE 264 3.458 16.133 49.906 1.000 22.51
ANISOU 1807 CE2 PHE 264 2151  4047  2355  -787  106  55 3
ATOM   1808 CZ  PHE 264 4.386 15.350 50.562 1.000 20.88
ANISOU 1808 CZ  PHE 264 2889  2376  2669  -936  -22  3 0 6
ATOM   1809 N   LEU 265 7.676 18.756 44.811 1.000 11.81
ANISOU 1809 N   LEU 265 1192  1248  2047  -37  47 1 9
ATOM   1810 CA  LEU 265 7.900 19.000 43.374 1.000 12.01
ANISOU 1810 CA  LEU 265 1264  1269  2028  -223  16 - 6 3
ATOM   1811 C   LEU 265 7.915 17.617 42.703 1.000 12.10
ANISOU 1811 C   LEU 265 1266  1298  2033  -117  -81  3
ATOM   1812 O   LEU 265 8.842 16.834 42.915 1.000 12.93
ANISOU 1812 O   LEU 265 1367  1283  2260  -107  -152 4 4
ATOM   1813 CB  LEU 265 9.246 19.730 43.156 1.000 12.59
ANISOU 1813 CB  LEU 265 1399  1364  2019  -257  57 - 9
ATOM   1814 CG  LEU 265 9.500 20.124 41.709 1.000 12.19
ANISOU 1814 CG  LEU 265 1168  1399  2066  -292  -248 30 2
ATOM   1815 CD1 LEU 265 8.620 21.314 41.318 1.000 13.29
ANISOU 1815 CD1 LEU 265 1518  1546  1984  84 36 1 9
ATOM   1816 CD2 LEU 265 10.971 20.458 41.449 1.000 13.14
ANISOU 1816 CD2 LEU 265 1204  1593  2197  -234  41 - 2 0
ATOM   1817 N   ARG 266 6.842 17.249 41.996 1.000 12.06
ANISOU 1817 N   ARG 266 1412  1127  2043  -220  -190 4 5
ATOM   1818 CA  ARG 266 6.586 15.913 41.488 1.000 12.07
ANISOU 1818 CA  ARG 266 1372  1201  2012  -258  0  8 0
ATOM   1819 C   ARG 266 6.619 15.965 39.972 1.000 11.75
ANISOU 1819 C   ARG 266 1203  1315  1948  29 -267 1 42
ATOM   1820 O   ARG 266 6.032 16.860 39.396 1.000 13.06
ANISOU 1820 O   ARG 266 1430  1318  2214  5  -173 2 81
ATOM   1821 CB  ARG 266 5.243 15.370 41.994 1.000 12.95
ANISOU 1821 CB  ARG 266 1142  1477  2302  -189  43 - 33
ATOM   1822 CG  ARG 266 5.036 15.606 43.488 1.000 13.80
ANISOU 1822 CG  ARG 266 1351  1686  2207  -159  66 -115
ATOM   1823 CD  ARG 266 3.723 15.041 43.993 1.000 12.70
ANISOU 1823 CD  ARG 266 1369  1362  2094  66 -22 8 4
ATOM   1824 NE  ARG 266 2.581 15.648 43.281 1.000 12.97
ANISOU 1824 NE  ARG 266 1343  1155  2428  52 -165  -137
ATOM   1825 CZ  ARG 266 1.304 15.281 43.500 1.000 11.34
ANISOU 1825 CZ  ARG 266 1432  1009  1869  45 -149  -103
ATOM   1826 NH1 ARG 266 0.995 14.414 44.476 1.000 13.39
ANISOU 1826 NH1 ARG 266 1802  1165  2119  -11  -38  7 2
ATOM   1827 NH2 ARG 266 0.305 15.821 42.826 1.000 12.55
ANISOU 1827 NH2 ARG 266 1490  1067  2210  125  -357 -15 9
ATOM   1828 N   PRO 267 7.237 14.951 39.357 1.000 12.74
ANISOU 1828 N   PRO 267 1418  1394  2030  16 -146  1 0 8
ATOM   1829 CA  PRO 267 7.298 14.947 37.887 1.000 13.88
ANISOU 1829 CA  PRO 267 1442  1786  2047  167  -125 - 8 4
ATOM   1830 C   PRO 267 5.957 14.722 37.222 1.000 12.61
ANISOU 1830 C   PRO 267 1413  1508  1868  -6 44 2 7
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ATOM    1831 O    PRO   267 4.998    14.155   37.772 1.000 13.60
ANISOU  1831 O    PRO   267 1648     1355     2164    -160  118   9  3
ATOM    1832 CB   PRO   267 8.238    13.761   37.599 1.000 15.30
ANISOU  1832 CB   PRO   267 1435     1740     2637    115   -28   -169
ATOM    1833 CG   PRO   267 8.033    12.846   38.764 1.000 15.82
ANISOU  1833 CG   PRO   267 1885     1804     2324    381   -270 -197
ATOM    1834 CD   PRO   267 7.872    13.746   39.965 1.000 14.73
ANISOU  1834 CD   PRO   267 1803     1356     2438    311   -666 -205
ATOM    1835 N    ASN   268 5.933    15.051   35.939 1.000 13.27
ANISOU  1835 N    ASN   268 1601     1665     1777    -126  -43  -127
ATOM    1836 CA   ASN   268 4.800    14.709   35.073 1.000 13.72
ANISOU  1836 CA   ASN   268 1793     1401     2018    -214  -236 -71
ATOM    1837 C    ASN   268 4.723    13.192   34.875 1.000 13.14
ANISOU  1837 C    ASN   268 1485     1350     2156    -213  104   5 4
ATOM    1838 O    ASN   268 5.702    12.467   34.934 1.000 13.90
ANISOU  1838 O    ASN   268 1698     1416     2167    -91   123   - 36
ATOM    1839 CB   ASN   268 4.997    15.338   33.690 1.000 15.74
ANISOU  1839 CB   ASN   268 2597     1369     2016    -66   -437 135
ATOM    1840 CG   ASN   268 5.011    16.862   33.811 1.000 15.41
ANISOU  1840 CG   ASN   268 2255     1439     2162    -17   -184 4 7
ATOM    1841 OD1  ASN   268 4.069    17.454   34.352 1.000 17.75
ANISOU  1841 OD1  ASN   268 2573     1686     2487    42 91  - 98
ATOM    1842 ND2  ASN   268 6.066    17.503   33.319 1.000 16.61
ANISOU  1842 ND2  ASN   268 2408     1355     2546    -50   -57   142
ATOM    1843 N    ALA   269 3.531    12.712   34.594 1.000 13.99
ANISOU  1843 N    ALA   269 1677     1467     2172    -356  -65   170
ATOM    1844 CA   ALA   269 3.278    11.286   34.353 1.000 13.42
ANISOU  1844 CA   ALA   269 1459     1405     2234    -208  -118 107
ATOM    1845 C    ALA   269 4.182    10.729   33.252 1.000 13.93
ANISOU  1845 C    ALA   269 1289     1538     2466    -168  -5  153
ATOM    1846 O    ALA   269 4.581    9.550    33.318 1.000 14.97
ANISOU  1846 O    ALA   269 1718     1476     2494    -143  112   8  6
ATOM    1847 CB   ALA   269 1.806    11.051   34.008 1.000 13.76
ANISOU  1847 CB   ALA   269 1300     1474     2454    -60   -61   123
ATOM    1848 N    ASP   270 4.482    11.541   32.251 1.000 14.38
ANISOU  1848 N    ASP   270 1688     1476     2300    -151  30   - 5
ATOM    1849 CA   ASP   270 5.247    11.079   31.098 1.000 14.83
ANISOU  1849 CA   ASP   270 1747     1693     2194    -99   -42  6 8
ATOM    1850 C    ASP   270 6.749    11.287   31.227 1.000 15.68
ANISOU  1850 C    ASP   270 1714     1886     2357    -224  143  8 6
ATOM    1851 O    ASP   270 7.483    11.008   30.255 1.000 17.12
ANISOU  1851 O    ASP   270 1952     2354     2200    -80   139   2 26
ATOM    1852 CB   ASP   270 4.718    11.681   29.800 1.000 17.67
ANISOU  1852 CB   ASP   270 2461     1966     2288    -75   -319 126
ATOM    1853 CG   ASP   270 4.968    13.168   29.649 1.000 18.22
ANISOU  1853 CG   ASP   270 2284     2024     2613    -88   -80  4 74
ATOM    1854 OD1  ASP   270 5.386    13.826   30.607 1.000 20.55
ANISOU  1854 OD1  ASP   270 3424     1541     2844    -47   -287 425
ATOM    1855 OD2  ASP   270 4.646    13.698   28.552 1.000 23.06
ANISOU  1855 OD2  ASP   270 3317     2727     2719    -49   -136 812
ATOM    1856 N    PHE   271 7.221    11.668   32.413 1.000 13.93
ANISOU  1856 N    PHE   271 1556     1318     2417    97 31  4 1
ATOM    1857 CA   PHE   271 8.671    11.723   32.644 1.000 14.41
ANISOU  1857 CA   PHE   271 1624     1430     2423    110   29 263
ATOM    1858 C    PHE   271 9.275    10.349   32.325 1.000 13.31
ANISOU  1858 C    PHE   271 1402     1430     2225    -30   28 218
ATOM    1859 O    PHE   271 8.790    9.340    32.870 1.000 14.91
ANISOU  1859 O    PHE   271 1900     1374     2392    -26   240   192
ATOM    1860 CB   PHE   271 8.942    12.146   34.098 1.000 15.57
ANISOU  1860 CB   PHE   271 1700     1721     2495    -66   -36  9
ATOM    1861 CG   PHE   271 10.386   11.791   34.516 1.000 14.56
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ANISOU 1861 CG  PHE 271 1729  1320  2485  -152  34  -124
ATOM   1862 CD1 PHE 271 11.460 12.369 33.814 1.000 17.76
ANISOU 1862 CD1 PHE 271 1714  1581  3452  -235  393  -249
ATOM   1863 CD2 PHE 271 10.698 10.972 35.570 1.000 18.04
ANISOU 1863 CD2 PHE 271 2182  1543  3130  -95  -540 172
ATOM   1864 CE1 PHE 271 12.786 12.092 34.166 1.000 17.54
ANISOU 1864 CE1 PHE 271 1838  1700  3128  -291  114  -50
ATOM   1865 CE2 PHE 271 11.997 10.609 35.899 1.000 18.84
ANISOU 1865 CE2 PHE 271 1935  1646  3578  -392 -396 425
ATOM   1866 CZ  PHE 271 13.039 11.154 35.162 1.000 17.25
ANISOU 1866 CZ  PHE 271 2444  1697  2415  -486  -19  -394
ATOM   1867 N   THR 272 10.278 10.298 31.453 1.000 13.78
ANISOU 1867 N   THR 272 1514  1641  2083  30  19  154
ATOM   1868 CA  THR 272 10.811 9.046 30.938 1.000 13.99
ANISOU 1868 CA  THR 272 1551  1660  2105  -99  83  67
ATOM   1869 C   THR 272 12.246 8.841 31.410 1.000 14.71
ANISOU 1869 C   THR 272 1598  1549  2441  -3  108 357
ATOM   1870 O   THR 272 13.046 9.808 31.424 1.000 16.23
ANISOU 1870 O   THR 272 1646  1742  2780  -246  5  185
ATOM   1871 CB  THR 272 10.751 9.117 29.388 1.000 16.27
ANISOU 1871 CB  THR 272 1856  2205  2119  191  125  8
ATOM   1872 OG1 THR 272 9.341 9.221 29.032 1.000 17.99
ANISOU 1872 OG1 THR 272 1996  2473  2368  64 -190  264
ATOM   1873 CG2 THR 272 11.249 7.856 28.723 1.000 17.94
ANISOU 1873 CG2 THR 272 2423  2167  2227  173  177  -94
ATOM   1874 N   PHE 273 12.567 7.600 31.743 1.000 14.91
ANISOU 1874 N   PHE 273 1644  1521  2499  92 238 218
ATOM   1875 CA  PHE 273 13.894 7.253 32.254 1.000 15.16
ANISOU 1875 CA  PHE 273 1602  1813  2345  296  277  55
ATOM   1876 C   PHE 273 14.350 5.899 31.724 1.000 14.69
ANISOU 1876 C   PHE 273 1408  1647  2528  24 479 178
ATOM   1877 O   PHE 273 13.541 5.086 31.262 1.000 15.91
ANISOU 1877 O   PHE 273 1738  1767  2541  -115  450  119
ATOM   1878 CB  PHE 273 13.899 7.301 33.769 1.000 15.77
ANISOU 1878 CB  PHE 273 1758  1921  2314  -344  286  123
ATOM   1879 CG  PHE 273 12.931 6.336 34.424 1.000 14.54
ANISOU 1879 CG  PHE 273 1390  1726  2410  -95  -11  195
ATOM   1880 CD1 PHE 273 11.601 6.743 34.655 1.000 16.64
ANISOU 1880 CD1 PHE 273 1457  2343  2521  -24  308  362
ATOM   1881 CD2 PHE 273 13.295 5.038 34.721 1.000 15.23
ANISOU 1881 CD2 PHE 273 1863  1624  2300  -110  91 136
ATOM   1882 CE1 PHE 273 10.719 5.848 35.259 1.000 16.10
ANISOU 1882 CE1 PHE 273 1593  2158  2365  -162  292  122
ATOM   1883 CE2 PHE 273 12.419 4.148 35.354 1.000 16.01
ANISOU 1883 CE2 PHE 273 1904  1980  2198  -139  285  181
ATOM   1884 CZ  PHE 273 11.109 4.559 35.548 1.000 15.18
ANISOU 1884 CZ  PHE 273 1843  2001  1925  -141  73 -227
ATOM   1885 N   SER 274 15.634 5.612 31.926 1.000 15.31
ANISOU 1885 N   SER 274 1559  1940  2317  361  383  247
ATOM   1886 CA  SER 274 16.221 4.318 31.518 1.000 15.37
ANISOU 1886 CA  SER 274 1476  1723  2642  32 557 156
ATOM   1887 C   SER 274 15.953 3.284 32.588 1.000 14.67
ANISOU 1887 C   SER 274 973 1877  2726  -113  265 302
ATOM   1888 O   SER 274 16.310 3.476 33.770 1.000 15.98
ANISOU 1888 O   SER 274 1668  1677  2728  126  143  193
ATOM   1889 CB  SER 274 17.742 4.556 31.356 1.000 17.41
ANISOU 1889 CB  SER 274 1487  2019  3112  235  945  725
ATOM   1890 OG  SER 274 18.362 3.280 31.334 1.000 18.03
ANISOU 1890 OG  SER 274 1839  1961  3052  293  840  188
ATOM   1891 N   VAL 275 15.395 2.133 32.182 1.000 15.58
ANISOU 1891 N   VAL 275 1646  1857  2417  -182  461  261
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ATOM    1892 CA  VAL   275 15.158   1.033   33.137 1.000 15.65
ANISOU  1892 CA  VAL   275 1681    1800    2466  -180  261  2 6 5
ATOM    1893 C   VAL   275 16.454   0.445   33.659 1.000 15.33
ANISOU  1893 C   VAL   275 1805    1881    2139   116  392   - 4 5
ATOM    1894 O   VAL   275 16.623   0.280   34.871 1.000 15.68
ANISOU  1894 O   VAL   275 2037    1655    2267    6  297 1 9 6
ATOM    1895 CB  VAL   275 14.227  -0.004   32.483 1.000 16.05
ANISOU  1895 CB  VAL   275 1635    1708    2755   -76  405   2 1
ATOM    1896 CG1 VAL   275 14.080  -1.186   33.426 1.000 17.04
ANISOU  1896 CG1 VAL   275 2045    1688    2740  -211  230   1 5
ATOM    1897 CG2 VAL   275 12.847   0.608   32.203 1.000 18.45
ANISOU  1897 CG2 VAL   275 1650    2432    2928   -57  135  2 6 9
ATOM    1898 N   PRO   276 17.437   0.093   32.844 1.000 16.21
ANISOU  1898 N   PRO   276 1927    1700    2532    97 589 3 6
ATOM    1899 CA  PRO   276 18.707  -0.434   33.399 1.000 18.10
ANISOU  1899 CA  PRO   276 1736    2115    3025   147  616   - 9 3
ATOM    1900 C   PRO   276 19.382   0.541   34.321 1.000 17.52
ANISOU  1900 C   PRO   276 1998    1961    2697    97 469 2 3 9
ATOM    1901 O   PRO   276 19.963   0.171   35.348 1.000 19.66
ANISOU  1901 O   PRO   276 2015    2409    3047    24 280 4 6 8
ATOM    1902 CB  PRO   276 19.590  -0.796   32.214 1.000 20.80
ANISOU  1902 CB  PRO   276 2094    2687    3121   306   771   - 2 4 9
ATOM    1903 CG  PRO   276 18.852  -0.390   30.999 1.000 21.57
ANISOU  1903 CG  PRO   276 2051    3098    3046   340   802   - 2 8 8
ATOM    1904 CD  PRO   276 17.446  -0.021   31.368 1.000 18.17
ANISOU  1904 CD  PRO   276 2053    2306    2546   179   832   - 3 1 8
ATOM    1905 N   LEU   277 19.325   1.845   34.027 1.000 17.09
ANISOU  1905 N   LEU   277 1571    1898    3025   230   511  1 0 7
ATOM    1906 CA  LEU   277 19.962   2.802   34.940 1.000 19.34
ANISOU  1906 CA  LEU   277 2035    2141    3171  -219  218  2 6 2
ATOM    1907 C   LEU   277 19.214   2.858   36.249 1.000 18.34
ANISOU  1907 C   LEU   277 1963    1958    3049   -33    -3  - 3 8
ATOM    1908 O   LEU   277 19.815   2.957   37.319 1.000 19.29
ANISOU  1908 O   LEU   277 2466    1710    3154  -271  -188  - 2
ATOM    1909 CB  LEU   277 20.094   4.178   34.291 1.000 21.41
ANISOU  1909 CB  LEU   277 2739    2011.   3383    14 12 2 8 7
ATOM    1910 CG  LEU   277 20.910   5.192   35.111 1.000 26.34
ANISOU  1910 CG  LEU   277 3662    2367    3978  -980  -547 9 4 4
ATOM    1911 CD1 LEU   277 22.396   4.839   35.069 1.000 38.04
ANISOU  1911 CD1 LEU   277 3764    3171    7518  -487  -2057  8 5 3
ATOM    1912 CD2 LEU   277 20.708   6.607   34.631 1.000 31.98
ANISOU  1912 CD2 LEU   277 4023    2018    6109  -366  5C8  7 3 2
ATOM    1913 N   ALA   278 17.875   2.711   36.202 1.000 17.30
ANISOU  1913 N   ALA   278 2015    1766    2793    74 218 1 1 5
ATOM    1914 CA  ALA   278 17.124   2.712   37.464 1.000 16.75
ANISOU  1914 CA  ALA   278 2200    1566    2600   216  146   - 2
ATOM    1915 C   ALA   278 17.575   1.523   38.313 1.000 16.31
ANISOU  1915 C   ALA   278 1849    1553    2794  -337  -196 1 0 7
ATOM    1916 O   ALA   278 17.718   1.635   39.523 1.000 17.26
ANISOU  1916 O   ALA   278 1963    1839    2754   -62   -53  2 0 5
ATOM    1917 CB  ALA   278 15.642   2.622   37.177 1.000 17.55
ANISOU  1917 CB  ALA   278 2109    1880    2679   295  195   - 1 1
ATOM    1918 N   ARG   279 17.724   0.362   37.696 1.000 17.07
ANISOU  1918 N   ARG   279 2322    1399    2766  -178  26 3 0 8
ATOM    1919 CA  ARG   279 18.099  -0.829   38.473 1.000 16.93
ANISOU  1919 CA  ARG   279 2377    1734    2323    15 -241  2 0 3
ATOM    1920 C   ARG   279 19.477  -0.587   39.098 1.000 19.87
ANISOU  1920 C   ARG   279 2491    2292    2766  -487  -384 5 4 3
ATOM    1921 O   ARG   279 19.687  -0.974   40.234 1.000 33.04
ANISOU  1921 O   ARG   279 3615    4823    4115  -1726 -1700  2 6 0 3
ATOM    1922 CB  ARG   279 18.164  -2.042   37.517 1.000 20.04
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ANISOU 1922 CB  ARG   279 2042     1609     3964    108  -221 -305
ATOM   1923 CG  ARG   279 16.742  -2.491   37.179 1.000 20.73
ANISOU 1923 CG  ARG   279 2152     2728     2997    -98  -401 -351
ATOM   1924 CD  ARG   279 16.601  -3.422   35.990 1.000 24.81
ANISOU 1924 CD  ARG   279 3213     2982     3231     -1  -507 -609
ATOM   1925 NE  ARG   279 17.575  -4.484   36.195 1.000 27.50
ANISOU 1925 NE  ARG   279 4331     2656     3463    355  -146 -181
ATOM   1926 CZ  ARG   279 17.301  -5.725   36.620 1.000 41.33
ANISOU 1926 CZ  ARG   279 7720     2466     5519   -186  -454 -142
ATOM   1927 NH1 ARG   279 16.024  -6.012   36.866 1.000 40.58
ANISOU 1927 NH1 ARG   279 8821     3012     3585  -1564   507  452
ATOM   1928 NH2 ARG   279 18.200  -6.688   36.807 1.000 53.27
ANISOU 1928 NH2 ARG   279 9516     2227     8496   -127 -4607 -463
ATOM   1929 N   GLU   280 20.390   0.119   38.424 1.000 19.68
ANISOU 1929 N   GLU   280 2172     2276     3028     84   324  136
ATOM   1930 CA  GLU   280 21.748   0.334   38.948 1.000 20.28
ANISOU 1930 CA  GLU   280 2046     2274     3385     25   581  115
ATOM   1931 C   GLU   280 21.705   1.257   40.182 1.000 20.67
ANISOU 1931 C   GLU   280 2334     1968     3552   -281   285    2 0
ATOM   1932 O   GLU   280 22.723   1.079   40.908 1.000 26.81
ANISOU 1932 O   GLU   280 2659     3419     4107    -37  -183  -87
ATOM   1933 CB  GLU   280 22.651   1.029   37.926 1.000 24.69
ANISOU 1933 CB  GLU   280 2778     2558     4044   -351  1022  303
ATOM   1934 CG  GLU   280 22.997   0.342   36.634 1.000 27.13
ANISOU 1934 CG  GLU   280 2605     4888     2816    596   116  623
ATOM   1935 CD  GLU   280 23.815   1.298   35.760 1.000 43.10
ANISOU 1935 CD  GLU   280 4693     7780     3903  -1328  1206  834
ATOM   1936 OE1 GLU   280 24.541   2.171   36.296 1.000 41.36
ANISOU 1936 OE1 GLU   280 2666     6033     7015     27  1099  690
ATOM   1937 OE2 GLU   280 23.727   1.219   34.520 1.000 64.81
ANISOU 1937 OE2 GLU   280 10844   10028     3751  -2356  1104 2134
ATOM   1938 N   CYS   281 20.777   2.156   40.313 1.000 21.61
ANISOU 1938 N   CYS   281 2372     2240     3599   -211   532 -238
ATOM   1939 CA  CYS   281 20.481   3.164   41.337 1.000 24.33
ANISOU 1939 CA  CYS   281 2114     2911     4219   -526  1121 -817
ATOM   1940 C   CYS   281 19.858   2.568   42.585 1.000 27.11
ANISOU 1940 C   CYS   281 2492     3261     4546  -1608  1457 -1343
ATOM   1941 O   CYS   281 19.789   3.161   43.685 1.000 19.19
ANISOU 1941 O   CYS   281 1997     2012     3282   -250  -326 135
ATOM   1942 CB  CYS   281 19.632   4.438   40.795 1.000 22.02
ANISOU 1942 CB  CYS   281 1214     3088     4063   -286   100 -2108
ATOM   1943 SG  CYS   281 20.639   5.092   39.444 1.000 53.41
ANISOU 1943 SG  CYS   281 10822    4742     4730  -3261  1316  4 5
ATOM   1944 N   GLY   282 19.370   1.317   42.565 1.000 18.81
ANISOU 1944 N   GLY   282 1230     2224     3695      3  -149 -206
ATOM   1945 CA  GLY   282 18.675   0.750   43.744 1.000 17.07
ANISOU 1945 CA  GLY   282 1544     1771     3171     31  -552 -168
ATOM   1946 C   GLY   282 17.194   0.496   43.538 1.000 14.91
ANISOU 1946 C   GLY   282 1601     1645     2417   -135  -453 378
ATOM   1947 O   GLY   282 16.480  -0.062   44.380 1.000 16.38
ANISOU 1947 O   GLY   282 1998     1921     2306   -211  -399 360
ATOM   1948 N   PHE   283 16.625   0.919   42.404 1.000 13.44
ANISOU 1948 N   PHE   283 1563     1539     2006   -189  -336 -115
ATOM   1949 CA  PHE   283 15.173   0.829   42.203 1.000 14.52
ANISOU 1949 CA  PHE   283 1677     1410     2428   -187  -670 4 6
ATOM   1950 C   PHE   283 14.810  -0.604   41.809 1.000 13.08
ANISOU 1950 C   PHE   283 1519     1314     2137   -121  -338 174
ATOM   1951 O   PHE   283 15.311  -1.184   40.837 1.000 14.11
ANISOU 1951 O   PHE   283 1366     1418     2578   -142   -78  1 7
ATOM   1952 CB  PHE   283 14.749   1.800   41.078 1.000 13.76
ANISOU 1952 CB  PHE   283 1814     1288     2125    -39  -268 0
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-77-

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ATOM    1953 CG   PHE  283 14.842   3.269   41.512 1.000 14.75
ANISOU  1953 CG   PHE  283 1985     1363    2255   12 -317  - 3
ATOM    1954 CD1  PHE  283 13.814   3.904   42.142 1.000 21.50
ANISOU  1954 CD1  PHE  283 2318     1759    4091   303  -23  -626
ATOM    1955 CD2  PHE  283 15.994   3.999   41.298 1.000 17.72
ANISOU  1955 CD2  PHE  283 2526     1244    2963   -307 -89  272
ATOM    1956 CE1  PHE  283 13.909   5.177   42.655 1.000 20.78
ANISOU  1956 CE1  PHE  283 2056     1802    4036   92 66 -647
ATOM    1957 CE2  PHE  283 16.115   5.290   41.814 1.000 15.06
ANISOU  1957 CE2  PHE  283 2101     1257    2364   -5 -255  377
ATOM    1958 CZ   PHE  283 15.084   5.891   42.506 1.000 18.04
ANISOU  1958 CZ   PHE  283 1881     1995    2979   192  -432 2 0
ATOM    1959 N    ASP  284 13.883  -1.178   42.579 1.000 13.07
ANISOU  1959 N    ASP  284 1549     1366    2049   -73  -331 1 17
ATOM    1960 CA   ASP  284 13.502  -2.584   42.395 1.000 12.80
ANISOU  1960 CA   ASP  284 1481     1460    1924   -231 -207 1 57
ATOM    1961 C    ASP  284 12.335  -2.654   41.421 1.000 12.88
ANISOU  1961 C    ASP  284 1493     1508    1891   -19  -180 - 5 5
ATOM    1962 O    ASP  284 11.231  -3.147   41.741 1.000 13.69
ANISOU  1962 O    ASP  284 1407     1351    2442   -93  -281 9 2
ATOM    1963 CB   ASP  284 13.141  -3.203   43.744 1.000 14.10
ANISOU  1963 CB   ASP  284 1966     1534    1858   -40  -11  1 45
ATOM    1964 CG   ASP  284 13.165  -4.730   43.717 1.000 14.49
ANISOU  1964 CG   ASP  284 1906     1520    2079   47 -424  2 90
ATOM    1965 OD1  ASP  284 13.732  -5.305   42.758 1.000 14.81
ANISOU  1965 OD1  ASP  284 2036     1343    2250   -152 -166 2 31
ATOM    1966 OD2  ASP  284 12.652  -5.310   44.696 1.000 15.32
ANISOU  1966 OD2  ASP  284 1979     1557    2286   -79  -109 1 53
ATOM    1967 N    VAL  285 12.644  -2.191   40.217 1.000 12.40
ANISOU  1967 N    VAL  285 1582     1260    1870   79 -185  - 1 31
ATOM    1968 CA   VAL  285 11.599  -2.064   39.216 1.000 12.31
ANISOU  1968 CA   VAL  285 1442     1469    1767   -161 -59  - 1
ATOM    1969 C    VAL  285 11.229  -3.419   38.589 1.000 12.09
ANISOU  1969 C    VAL  285 1220     1407    1967   -1 -100  - 7 9
ATOM    1970 O    VAL  285 12.085  -4.311   38.433 1.000 13.68
ANISOU  1970 O    VAL  285 1237     1514    2446   67 56 4 0
ATOM    1971 CB   VAL  285 12.009  -1.066   38.098 1.000 14.68
ANISOU  1971 CB   VAL  285 1943     1621    2014   -163 -50  2 59
ATOM    1972 CG1  VAL  285 12.131   0.332   38.672 1.000 17.08
ANISOU  1972 CG1  VAL  285 2429     1402    2658   18 -465  4 25
ATOM    1973 CG2  VAL  285 13.309  -1.499   37.433 1.000 15.69
ANISOU  1973 CG2  VAL  285 2131     2180    1649   -316 161  3 0 6
ATOM    1974 N    SER  286 9.952   -3.541   38.241 1.000 12.24
ANISOU  1974 N    SER  286 1263     1440    1946   -12  -148 - 1 17
ATOM    1975 CA   SER  286 9.398   -4.669   37.495 1.000 12.84
ANISOU  1975 CA   SER  286 1571     1463    1845   -356 -30  1 4
ATOM    1976 C    SER  286 8.861   -4.118   36.172 1.000 11.99
ANISOU  1976 C    SER  286 1516     1374    1666   -28  60 -1 98
ATOM    1977 O    SER  286 7.654   -4.110   35.917 1.000 15.68
ANISOU  1977 O    SER  286 1514     2384    2059   2  18 - 2 0
ATOM    1978 CB   SER  286 8.301   -5.327   38.300 1.000 12.54
ANISOU  1978 CB   SER  286 1407     1442    1915   -59  170  - 5 5
ATOM    1979 OG   SER  286 7.415   -4.380   38.890 1.000 13.15
ANISOU  1979 OG   SER  286 1531     1430    2034   105  -73  - 5 9
ATOM    1980 N    LEU  287 9.769   -3.649   35.333 1.000 13.56
ANISOU  1980 N    LEU  287 1574     1521    2058   41 133 1 77
ATOM    1981 CA   LEU  287 9.451   -2.932   34.101 1.000 13.48
ANISOU  1981 CA   LEU  287 1812     1418    1891   -84  116  1 7
ATOM    1982 C    LEU  287 10.075  -3.654   32.908 1.000 15.12
ANISOU  1982 C    LEU  287 1945     1714    2086   32 233 - 3 1
ATOM    1983 O    LEU  287 11.277  -3.883   32.927 1.000 17.91
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ANISOU 1983 O    LEU  287 1885    2275    2645    109   300   -275
ATOM   1984 CB   LEU  287 9.954  -1.480  34.118 1.000 14.37
ANISOU 1984 CB   LEU  287 1773    1380    2306    -34   248   107
ATOM   1985 CG   LEU  287 9.362  -0.603  35.231 1.000 14.32
ANISOU 1985 CG   LEU  287 1421    1496    2523    62    52   -158
ATOM   1986 CD1  LEU  287 10.143  0.705  35.413 1.000 14.53
ANISOU 1986 CD1  LEU  287 1672    1444    2403    0   -146   143
ATOM   1987 CD2  LEU  287 7.921  -0.197  34.820 1.000 16.03
ANISOU 1987 CD2  LEU  287 1475    2035    2579    166  -100   -7
ATOM   1988 N    ASP  288 9.256  -4.060  31.958 1.000 15.09
ANISOU 1988 N    ASP  288 2041    1611    2081    73   175   -216
ATOM   1989 CA   ASP  288 9.764  -4.722  30.757 1.000 16.55
ANISOU 1989 CA   ASP  288 1992    2028    2268    29   335   -314
ATOM   1990 C    ASP  288 10.437 -3.682  29.874 1.000 18.74
ANISOU 1990 C    ASP  288 2484    2597    2040   -231    97    81
ATOM   1991 O    ASP  288 9.998  -2.526  29.849 1.000 25.48
ANISOU 1991 O    ASP  288 3382    2433    3865   -322   639   346
ATOM   1992 CB   ASP  288 8.659  -5.490  30.060 1.000 19.23
ANISOU 1992 CB   ASP  288 2431    2414    2460   -209   258   -720
ATOM   1993 CG   ASP  288 9.139  -6.468  29.000 1.000 19.50
ANISOU 1993 CG   ASP  288 2688    2223    2499    -49   393   -552
ATOM   1994 OD1  ASP  288 10.173 -7.145  29.185 1.000 27.03
ANISOU 1994 OD1  ASP  288 3134    3038    4100    624   427   -716
ATOM   1995 OD2  ASP  288 8.458  -6.566  27.955 1.000 31.00
ANISOU 1995 OD2  ASP  288 3596    4859    3325    307  -361  -2100
ATOM   1996 N    GLY  289 11.489 -4.035  29.137 1.000 22.68
ANISOU 1996 N    GLY  289 2960    2893    2765   -531   778   116
ATOM   1997 CA   GLY  289 12.008 -3.083  28.169 1.000 25.60
ANISOU 1997 CA   GLY  289 3678    3562    2486  -1469   558   11
ATOM   1998 C    GLY  289 12.988 -2.078  28.725 1.000 21.08
ANISOU 1998 C    GLY  289 2567    2916    2528   -485   353   150
ATOM   1999 O    GLY  289 13.411 -2.097  29.891 1.000 23.72
ANISOU 1999 O    GLY  289 3428    3219    2364  -1104   440   113
ATOM   2000 N    GLU  290 13.402 -1.168  27.818 1.000 18.32
ANISOU 2000 N    GLU  290 2246    2396    2319   -145   616   115
ATOM   2001 CA   GLU  290 14.538 -0.301  28.074 1.000 17.75
ANISOU 2001 CA   GLU  290 1912    2419    2412    97   770  -367
ATOM   2002 C    GLU  290 14.261  1.058  28.696 1.000 17.90
ANISOU 2002 C    GLU  290 2180    2308    2313    50   711  -297
ATOM   2003 O    GLU  290 15.143  1.619  29.353 1.000 17.58
ANISOU 2003 O    GLU  290 2525    2050    2104    -35   380   165
ATOM   2004 CB   GLU  290 15.341 -0.161  26.785 1.000 23.21
ANISOU 2004 CB   GLU  290 3184    2508    3126   -273  1753  -467
ATOM   2005 CG   GLU  290 15.833 -1.492  26.226 1.000 24.55
ANISOU 2005 CG   GLU  290 3609    2992    2725    348  1232  -743
ATOM   2006 CD   GLU  290 16.676 -2.280  27.221 1.000 30.03
ANISOU 2006 CD   GLU  290 3365    3708    4337    476   753  -211
ATOM   2007 OE1  GLU  290 17.492 -1.684  27.947 1.000 40.04
ANISOU 2007 OE1  GLU  290 5043    6674    3498    525    36 -1226
ATOM   2008 OE2  GLU  290 16.622 -3.527  27.237 1.000 51.76
ANISOU 2008 OE2  GLU  290 8785    3812    7070    -12  -483  1583
ATOM   2009 N    THR  291 13.064  1.578  28.486 1.000 18.14
ANISOU 2009 N    THR  291 2305    2486    2103    224   711  -321
ATOM   2010 CA   THR  291 12.697  2.896  29.049 1.000 18.72
ANISOU 2010 CA   THR  291 2521    2080    2511    105  1131   66
ATOM   2011 C    THR  291 11.278  2.744  29.593 1.000 15.79
ANISOU 2011 C    THR  291 2178    1758    2064    134   538   -50
ATOM   2012 O    THR  291 10.517  1.834  29.217 1.000 18.62
ANISOU 2012 O    THR  291 2764    1966    2344   -248   664  -311
ATOM   2013 CB   THR  291 12.722  4.031  28.044 1.000 21.54
ANISOU 2013 CB   THR  291 3043    2625    2516   -164   891   362
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ATOM    2014 OG1 THR  291 11.695  3.862  27.077 1.000 25.98
ANISOU  2014 OG1 THR  291 3160   4072   2641   -86   703  5 0 3
ATOM    2015 CG2 THR  291 14.048  4.115  27.292 1.000 24.20
ANISOU  2015 CG2 THR  291 3199   3832   2164   -445  930  5 3 3
ATOM    2016 N   ALA  292 10.959  3.658  30.492 1.000 14.84
ANISOU  2016 N   ALA  292 1637   1656   2347   200   429  -1 5 3
ATOM    2017 CA  ALA  292 9.675   3.657  31.179 1.000 13.84
ANISOU  2017 CA  ALA  292 1488   1477   2294   170   299  7 8
ATOM    2018 C   ALA  292 9.356   5.065  31.619 1.000 12.65
ANISOU  2018 C   ALA  292 1334   1564   1908   60 144 -1 3 9
ATOM    2019 O   ALA  292 10.228  5.939  31.710 1.000 14.27
ANISOU  2019 O   ALA  292 1529   1596   2295   -35   109  1 1 6
ATOM    2020 CB  ALA  292 9.670   2.754  32.414 1.000 14.02
ANISOU  2020 CB  ALA  292 1693   1580   2053   37 22 - 2 7
ATOM    2021 N   THR  293 8.054   5.258  31.916 1.000 13.54
ANISOU  2021 N   THR  293 1468   1617   2058   117   373  -1 1 8
ATOM    2022 CA  THR  293 7.605   6.546  32.424 1.000 13.40
ANISOU  2022 CA  THR  293 1565   1647   1877   152   209  - 2 3 2
ATOM    2023 C   THR  293 7.407   6.482  33.952 1.000 12.09
ANISOU  2023 C   THR  293 1345   1322   1927   -62   326  - 1 2
ATOM    2024 O   THR  293 7.214   5.441  34.555 1.000 12.93
ANISOU  2024 O   THR  293 1385   1356   2170   -190  194  9 0
ATOM    2025 CB  THR  293 6.295   7.058  31.788 1.000 13.45
ANISOU  2025 CB  THR  293 1598   1579   1935   95 345 3 4 5
ATOM    2026 OG1 THR  293 5.273   6.112  32.117 1.000 13.75
ANISOU  2026 OG1 THR  293 1672   1570   1981   -12   314  1 3 5
ATOM    2027 CG2 THR  293 6.476   7.139  30.272 1.000 15.93
ANISOU  2027 CG2 THR  293 2121   2022   1911   255   434  3 3 7
ATOM    2028 N   PHE  294 7.241   7.661  34.544 1.000 12.81
ANISOU  2028 N   PHE  294 1607   1440   1822   -83   149  - 1 5 1
ATOM    2029 CA  PHE  294 6.857   7.773  35.935 1.000 12.37
ANISOU  2029 CA  PHE  294 1332   1469   1899   -267  166  - 2 8 9
ATOM    2030 C   PHE  294 5.556   7.022  36.184 1.000 12.36
ANISOU  2030 C   PHE  294 1336   1361   1999   -151  30 - 3 6
ATOM    2031 O   PHE  294 5.403   6.253  37.143 1.000 13.27
ANISOU  2031 O   PHE  294 1556   1410   2076   -191  183  4 6
ATOM    2032 CB  PHE  294 6.698   9.271  36.267 1.000 13.83
ANISOU  2032 CB  PHE  294 2039   1351   1866   -192  -29  - 1 7 7
ATOM    2033 CG  PHE  294 6.306   9.488  37.711 1.000 13.10
ANISOU  2033 CG  PHE  294 1786   1216   1974   -125  -63  - 2 4 4
ATOM    2034 CD1 PHE  294 7.207   9.411  38.749 1.000 17.41
ANISOU  2034 CD1 PHE  294 2132   2533   1952   -1012 -287 7 6
ATOM    2035 CD2 PHE  294 4.964   9.739  38.026 1.000 18.41
ANISOU  2035 CD2 PHE  294 2156   2263   2575   565   332  5 7
ATOM    2036 CE1 PHE  294 6.810   9.608  40.054 1.000 17.72
ANISOU  2036 CE1 PHE  294 2348   2296   2086   -308  -362 -1 3 6
ATOM    2037 CE2 PHE  294 4.591   10.010 39.324 1.000 19.37
ANISOU  2037 CE2 PHE  294 2078   2541   2740   330   232  - 6 3 0
ATOM    2038 CZ  PHE  294 5.507   9.956  40.355 1.000 18.36
ANISOU  2038 CZ  PHE  294 2443   1678   2855   -394  -55  - 2 4 5
ATOM    2039 N   GLN  295 4.588   7.205  35.246 1.000 12.59
ANISOU  2039 N   GLN  295 1248   1429   2106   -62   38 -1 6 8
ATOM    2040 CA  GLN  295 3.320   6.484  35.408 1.000 12.76
ANISOU  2040 CA  GLN  295 1266   1215   2365   7 -157  - 1 1 7
ATOM    2041 C   GLN  295 3.512   4.984  35.318 1.000 12.24
ANISOU  2041 C   GLN  295 1449   1256   1944   10 1  - 7 3
ATOM    2042 O   GLN  295 2.922   4.238  36.101 1.000 13.61
ANISOU  2042 O   GLN  295 1323   1427   2424   7 85 1 5 5
ATOM    2043 CB  GLN  295 2.375   6.975  34.317 1.000 14.31
ANISOU  2043 CB  GLN  295 1227   1594   2616   81 -133  1 9 2
ATOM    2044 CG  GLN  295 1.062   6.256  34.249 1.000 14.03
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- 80 -

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ANISOU 2044 CG  GLN 295 1391  1509  2430  -59  -300  4  7
ATOM   2045 CD  GLN 295 0.157  6.687 33.115 1.000 13.56
ANISOU 2045 CD  GLN 295 1305  1486  2361  133  -117 1 6 5
ATOM   2046 OE1 GLN 295 0.459  7.693 32.419 1.000 15.35
ANISOU 2046 OE1 GLN 295 1811  1651  2371  161  206  2 2 0
ATOM   2047 NE2 GLN 295 -0.982 6.026 32.943 1.000 15.04
ANISOU 2047 NE2 GLN 295 1225  1995  2493  75 -139  - 9 9
ATOM   2048 N   ASP 296 4.363  4.463 34.423 1.000 12.66
ANISOU 2048 N   ASP 296 1425  1396  1990  181  -112 - 1 1 0
ATOM   2049 CA  ASP 296 4.653  3.016 34.439 1.000 12.26
ANISOU 2049 CA  ASP 296 1628  1274  1755  53 -51 - 1 5 1
ATOM   2050 C   ASP 296 5.167  2.569 35.792 1.000 11.57
ANISOU 2050 C   ASP 296 1199  1300  1895  -82  30 - 2 2
ATOM   2051 O   ASP 296 4.854  1.460 36.224 1.000 13.08
ANISOU 2051 O   ASP 296 1534  1368  2070  -107  38 1 3 9
ATOM   2052 CB  ASP 296 5.709  2.634 33.399 1.000 14.18
ANISOU 2052 CB  ASP 296 1870  1700  1819  141  30 - 3 7 8
ATOM   2053 CG  ASP 296 5.295  2.848 31.952 1.000 13.32
ANISOU 2053 CG  ASP 296 1655  1557  1848  -58  67 2
ATOM   2054 OD1 ASP 296 4.110  2.725 31.601 1.000 15.83
ANISOU 2054 OD1 ASP 296 1680  1935  2402  -68  -126 -1 8 9
ATOM   2055 OD2 ASP 296 6.212  3.098 31.114 1.000 15.27
ANISOU 2055 OD2 ASP 296 1757  1937  2106  -229  137 1 7 7
ATOM   2056 N   TRP 297 6.038  3.352 36.416 1.000 12.26
ANISOU 2056 N   TRP 297 1325  1403  1931  -34  -123 - 1 1 8
ATOM   2057 CA  TRP 297 6.683  2.960 37.656 1.000 12.82
ANISOU 2057 CA  TRP 297 1328  1599  1943  -104  -49 1 5 1
ATOM   2058 C   TRP 297 5.746  3.007 38.858 1.000 13.13
ANISOU 2058 C   TRP 297 1418  1580  1992  24 -23 1 8 5
ATOM   2059 O   TRP 297 5.565  2.030 39.584 1.000 14.03
ANISOU 2059 O   TRP 297 1554  1619  2159  102  137  3 2 0
ATOM   2060 CB  TRP 297 7.908  3.847 37.928 1.000 13.68
ANISOU 2060 CB  TRP 297 1130  1692  2376  -19  -169 1 5 1
ATOM   2061 CG  TRP 297 8.646  3.455 39.166 1.000 13.28
ANISOU 2061 CG  TRP 297 1143  1646  2255  91 -96 2 2
ATOM   2062 CD1 TRP 297 8.932  2.179 39.622 1.000 15.58
ANISOU 2062 CD1 TRP 297 1615  1689  2618  275  -544 - 7 7
ATOM   2063 CD2 TRP 297 9.144  4.353 40.189 1.000 14.69
ANISOU 2063 CD2 TRP 297 1327  1693  2562  -117  -219 5
ATOM   2064 NE1 TRP 297 9.583  2.265 40.840 1.000 15.34
ANISOU 2064 NE1 TRP 297 1378  1853  2598  70 -494  7 5
ATOM   2065 CE2 TRP 297 9.724  3.597 41.203 1.000 16.13
ANISOU 2065 CE2 TRP 297 1241  2009  2880  182  -676 - 1 9 6
ATOM   2066 CE3 TRP 297 9.094  5.756 40.284 1.000 22.13
ANISOU 2066 CE3 TRP 297 3040  1658  3712  -665 -1408  1 2 9
ATOM   2067 CZ2 TRP 297 10.318 4.180 42.316 1.000 18.45
ANISOU 2067 CZ2 TRP 297 2204  2387  2418  44 -326  - 3 3 1
ATOM   2068 CZ3 TRP 297 9.670  6.353 41.399 1.000 21.55
ANISOU 2068 CZ3 TRP 297 2916  2104  3167  -55  -752 - 4 5 8
ATOM   2069 CH2 TRP 297 10.258 5.546 42.397 1.000 23.53
ANISOU 2069 CH2 TRP 297 3298  2356  3285  -320  -1146 - 3 4 4
ATOM   2070 N   ILE 298 5.106  4.167 39.044 1.000 13.58
ANISOU 2070 N   ILE 298 1324  1726  2108  241  -167 1 2 7
ATOM   2071 CA  ILE 298 4.299  4.440 40.229 1.000 14.68
ANISOU 2071 CA  ILE 298 1413  2177  1986  -13  -161 - 2 0 8
ATOM   2072 C   ILE 298 2.841  4.054 40.121 1.000 12.02
ANISOU 2072 C   ILE 298 1455  1300  1813  56 -239  4 0 2
ATOM   2073 O   ILE 298 2.182  3.782 41.147 1.000 13.67
ANISOU 2073 O   ILE 298 1732  1582  1881  -23  -4 1 9 3
ATOM   2074 CB  ILE 298 4.428  5.914 40.673 1.000 19.45
ANISOU 2074 CB  ILE 298 2261  2446  2683  -699  237 - 8 3 5
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ATOM    2075 CG1 ILE   298 5.907    6.245   41.001 1.000 27.83
ANISOU  2075 CG1 ILE   298 2776     4275    3525   -1314 -556 -1030
ATOM    2076 CG2 ILE   298 3.679    6.319   41.929 1.000 25.05
ANISOU  2076 CG2 ILE   298 3770     3344    2405   -57   255  -983
ATOM    2077 CD1 ILE   298 6.368    5.628   42.306 1.000 43.32
ANISOU  2077 CD1 ILE   298 4561     7224    4674   -652  -1890 -117
ATOM    2078 N   GLY   299 2.317    3.980   38.893 1.000 12.16
ANISOU  2078 N   GLY   299 1432     1308    1879   78 -304  106
ATOM    2079 CA  GLY   299 0.918    3.741   38.670 1.000 12.98
ANISOU  2079 CA  GLY   299 1276     1279    2379   106   -188 -154
ATOM    2080 C   GLY   299 0.135    5.017   38.378 1.000 13.09
ANISOU  2080 C   GLY   299 1421     1403    2151   113   -231 118
ATOM    2081 O   GLY   299 0.738    6.025   38.017 1.000 14.00
ANISOU  2081 O   GLY   299 1713     1353    2252   122   289  -13
ATOM    2082 N   GLY   300 -1.183   4.917   38.447 1.000 13.08
ANISOU  2082 N   GLY   300 1325     1545    2099   146   -267 -145
ATOM    2083 CA  GLY   300 -2.075   5.966   37.992 1.000 13.45
ANISOU  2083 CA  GLY   300 1447     1521    2143   116   -415 -143
ATOM    2084 C   GLY   300 -2.519   6.972   39.042 1.000 12.94
ANISOU  2084 C   GLY   300 1098     1365    2456   -52   -407 -192
ATOM    2085 O   GLY   300 -3.262   7.875   38.672 1.000 13.39
ANISOU  2085 O   GLY   300 1321     1342    2423   -19   -217 -45
ATOM    2086 N   ASN   301 -1.973   6.845   40.254 1.000 13.35
ANISOU  2086 N   ASN   301 1494     1429    2151   -225  -232 -104
ATOM    2087 CA  ASN   301 -2.162   7.842   41.313 1.000 13.83
ANISOU  2087 CA  ASN   301 1590     1435    2230   -194  -38  -61
ATOM    2088 C   ASN   301 -0.837   8.254   41.885 1.000 12.46
ANISOU  2088 C   ASN   301 1676     1268    1791   -35   -142 -20
ATOM    2089 O   ASN   301 -0.007   7.405   42.169 1.000 13.89
ANISOU  2089 O   ASN   301 1831     1355    2093   73 -144  -13
ATOM    2090 CB  ASN   301 -3.075   7.238   42.360 1.000 16.01
ANISOU  2090 CB  ASN   301 1632     1909    2542   77 224 315
ATOM    2091 CG  ASN   301 -3.942   8.199   43.106 1.000 18.23
ANISOU  2091 CG  ASN   301 1986     2508    2435   190   152  -90
ATOM    2092 OD1 ASN   301 -4.973   8.690   42.614 1.000 17.44
ANISOU  2092 OD1 ASN   301 1606     1626.   3394   -21   144  -190
ATOM    2093 ND2 ASN   301 -3.518   8.454   44.338 1.000 33.30
ANISOU  2093 ND2 ASN   301 2804     6923    2928   1012  -230 -1523
ATOM    2094 N   TYR   302 -0.595   9.564   42.073 1.000 12.96
ANISOU  2094 N   TYR   302 1662     1278    1985   -69   -21  -135
ATOM    2095 CA  TYR   302 0.674    9.948   42.702 1.000 13.48
ANISOU  2095 CA  TYR   302 1673     1259    2192   -130  -132 3 4
ATOM    2096 C   TYR   302 0.768    9.269   44.078 1.000 12.63
ANISOU  2096 C   TYR   302 1413     1293    2092   53 44 1 9
ATOM    2097 O   TYR   302 -0.218   9.151   44.806 1.000 14.15
ANISOU  2097 O   TYR   302 1332     1737    2305   -65   48  -27.
ATOM    2098 CB  TYR   302 0.764    11.472  42.916 1.000 13.30
ANISOU  2098 CB  TYR   302 1635     1192    2226   -81   33 4 1
ATOM    2099 CG  TYR   302 1.159    12.143  41.619 1.000 12.02
ANISOU  2099 CG  TYR   302 1586     1103    1880   -59   -25  -271
ATOM    2100 CD1 TYR   302 2.501    12.233  41.275 1.000 13.11
ANISOU  2100 CD1 TYR   302 1633     1284    2066   -80   11 -18
ATOM    2101 CD2 TYR   302 0.235    12.709  40.739 1.000 12.52
ANISOU  2101 CD2 TYR   302 1576     1132    2049   -44   13 -127
ATOM    2102 CE1 TYR   302 2.933    12.822  40.119 1.000 12.29
ANISOU  2102 CE1 TYR   302 1581     1043    2045   -185  -84  -77
ATOM    2103 CE2 TYR   302 0.637    13.273  39.535 1.000 14.12
ANISOU  2103 CE2 TYR   302 1462     1443    2458   -241  15 3 25
ATOM    2104 CZ  TYR   302 1.983    13.347  39.241 1.000 12.69
ANISOU  2104 CZ  TYR   302 1483     1224    2113   -287  -91  1 0
ATOM    2105 OH  TYR   302 2.376    13.866  38.013 1.000 13.42
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ANISOU 2105 OH  TYR 302 1505    1469    2124    -93    33 1 4 6
ATOM   2106 N   VAL 303 1.956   8.855   44.450 1.000 13.92
ANISOU 2106 N   VAL 303 1406    1637    2246    153    88 9 9
ATOM   2107 CA  VAL 303 2.355   8.336   45.746 1.000 14.51
ANISOU 2107 CA  VAL 303 1838    1320    2355   -137  -391 - 7 4
ATOM   2108 C   VAL 303 3.498   9.244   46.239 1.000 15.23
ANISOU 2108 C   VAL 303 1404    1507    2876   -102  -105 - 3 4 8
ATOM   2109 O   VAL 303 4.471   9.386   45.512 1.000 18.70
ANISOU 2109 O   VAL 303 1859    1861    3386   -239   326 - 5 0 4
ATOM   2110 CB  VAL 303 2.856   6.880   45.632 1.000 16.75
ANISOU 2110 CB  VAL 303 2140    1319    2905    16  -759 - 1 2 3
ATOM   2111 CG1 VAL 303 3.279   6.401   47.017 1.000 19.53
ANISOU 2111 CG1 VAL 303 2185    1951    3284    232  -1054 1 4 8
ATOM   2112 CG2 VAL 303 1.723   5.956   45.125 1.000 17.82
ANISOU 2112 CG2 VAL 303 2476    1442    2852   -213  -558 - 4 0 6
ATOM   2113 N   ASN 304 3.349   9.900   47.378 1.000 14.07
ANISOU 2113 N   ASN 304 1409    1369    2566   -39  -407 - 8 6
ATOM   2114 CA  ASN 304 4.317   10.928  47.772 1.000 14.31
ANISOU 2114 CA  ASN 304 1474    1387    2578   -102  -424 - 5 5
ATOM   2115 C   ASN 304 5.450   10.397  48.637 1.000 13.75
ANISOU 2115 C   ASN 304 1360    1487    2378    34  -274 - 8 7
ATOM   2116 O   ASN 304 6.539   10.962  48.584 1.000 14.60
ANISOU 2116 O   ASN 304 1314    1795    2438   -34   -55 - 3 2 0
ATOM   2117 CB  ASN 304 3.589   12.035  48.551 1.000 14.26
ANISOU 2117 CB  ASN 304 1710    1214    2494    6   -303  1 7 6
ATOM   2118 CG  ASN 304 2.535   12.661  47.642 1.000 14.81
ANISOU 2118 CG  ASN 304 1551    1627    2449    23  -114  4 0 2
ATOM   2119 OD1 ASN 304 2.866   13.255  46.622 1.000 16.52
ANISOU 2119 OD1 ASN 304 1896    1746    2636    80   19 5 8 9
ATOM   2120 ND2 ASN 304 1.290   12.595  48.102 1.000 18.43
ANISOU 2120 ND2 ASN 304 1560    2980    2463    127  -10  1 9 9
ATOM   2121 N   ILE 305 5.175   9.413   49.463 1.000 16.36
ANISOU 2121 N   ILE 305 1546    1553    3117   -78  -503 2 6 6
ATOM   2122 CA  ILE 305 6.173   8.890   50.407 1.000 14.85
ANISOU 2122 CA  ILE 305 1670    1537    2436    165  -277 - 4 0
ATOM   2123 C   ILE 305 6.183   7.372   50.352 1.000 15.78
ANISOU 2123 C   ILE 305 1527    1555    2914    95  -438 - 5 1
ATOM   2124 O   ILE 305 5.231   6.736   49.886 1.000 17.54
ANISOU 2124 O   ILE 305 1463    1789    3412   -131  -404 5
ATOM   2125 CB  ILE 305 5.949   9.430   51.818 1.000 17.80
ANISOU 2125 CB  ILE 305 2167    1962    2634   -23   265 - 2 0 9
ATOM   2126 CG1 ILE 305 4.578   9.091   52.416 1.000 18.93
ANISOU 2126 CG1 ILE 305 1716    2948    2526    1   -218 - 1 6 3
ATOM   2127 CG2 ILE 305 6.171   10.944  51.823 1.000 19.17
ANISOU 2127 CG2 ILE 305 2685    1863    2737    70  -534 - 4 0 5
ATOM   2128 CD1 ILE 305 4.415   9.459   53.863 1.000 21.28
ANISOU 2128 CD1 ILE 305 2521    2902    2662    19  452 - 7 1
ATOM   2129 N   ARG 306 7.246   6.806   50.908 1.000 14.59
ANISOU 2129 N   ARG 306 1738    1641    2165    52  -356  2 7 1
ATOM   2130 CA  ARG 306 7.424   5.360   50.828 1.000 15.25
ANISOU 2130 CA  ARG 306 1509    1663    2622    139  -302 7 7
ATOM   2131 C   ARG 306 8.234   4.903   52.024 1.000 15.02
ANISOU 2131 C   ARG 306 1588    1464    2656    133  -332 - 2 1
ATOM   2132 O   ARG 306 9.141   5.614   52.433 1.000 16.63
ANISOU 2132 O   ARG 306 1682    2101    2536   -219  -294 - 1 6 8
ATOM   2133 CB  ARG 306 8.135   4.943   49.532 1.000 16.31
ANISOU 2133 CB  ARG 306 1820    1681    2697   -100  -270 - 1 5 0
ATOM   2134 CG  ARG 306 8.226   3.414   49.377 1.000 18.43
ANISOU 2134 CG  ARG 306 2476    1700    2828    40  -194 - 1 5 6
ATOM   2135 CD  ARG 306 8.401   3.068   47.900 1.000 18.26
ANISOU 2135 CD  ARG 306 2087    1971    2880   -120  -145 - 3 3 0
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ATOM    2136  NE  ARG   306   7.136    3.228   47.188  1.000  20.53
ANISOU  2136  NE  ARG   306  2442     2013     3345    -577   -669  -234
ATOM    2137  CZ  ARG   306   6.980    3.178   45.873  1.000  20.27
ANISOU  2137  CZ  ARG   306  2330     2057     3316    373    -522  2  0
ATOM    2138  NH1 ARG   306   8.086    3.000   45.107  1.000  22.13
ANISOU  2138  NH1 ARG   306  2136     2580     3695    274    -589  -723
ATOM    2139  NH2 ARG   306   5.759    3.250   45.341  1.000  18.44
ANISOU  2139  NH2 ARG   306  2107     1838     3062    259    -286  8  4
ATOM    2140  N   ARG   307   7.898    3.775   52.612  1.000  19.10
ANISOU  2140  N   ARG   307  2716     1872     2671    -294   -607  327
ATOM    2141  CA  ARG   307   8.576    3.212   53.768  1.000  21.13
ANISOU  2141  CA  ARG   307  3321     2201     2504    -48    -845  139
ATOM    2142  C   ARG   307   9.536    2.138   53.277  1.000  23.30
ANISOU  2142  C   ARG   307  3417     2170     3267    181    -1046 3  9
ATOM    2143  O   ARG   307   9.385    1.601   52.187  1.000  21.01
ANISOU  2143  O   ARG   307  2574     2355     3052    174    -728  112
ATOM    2144  CB  ARG   307   7.557    2.522   54.694  1.000  27.30
ANISOU  2144  CB  ARG   307  4545     3184     2645    -13    -247  705
ATOM    2145  CG  ARG   307   6.839    3.488   55.629  1.000  46.30
ANISOU  2145  CG  ARG   307  6310     6374     4907    215    1655  -970
ATOM    2146  CD  ARG   307   7.054    3.085   57.085  1.000  66.50
ANISOU  2146  CD  ARG   307  11107    10355    3806    -2980  2792  -1145
ATOM    2147  NE  ARG   307   5.989    2.203   57.531  1.000  78.91
ANISOU  2147  NE  ARG   307  11821    12833    5330    -4530  1969  - 5
ATOM    2148  CZ  ARG   307   5.987    1.285   58.479  1.000  73.67
ANISOU  2148  CZ  ARG   307  7704     14382    5907    -4724  1249  1051
ATOM    2149  NH1 ARG   307   7.063    1.038   59.214  1.000  80.32
ANISOU  2149  NH1 ARG   307  6613     17949    5955    -3290  2179  105
ATOM    2150  NH2 ARG   307   4.872    0.597   58.707  1.000  73.74
ANISOU  2150  NH2 ARG   307  9116     15919    2983    -6954  438   -917
ATOM    2151  N   THR   308  10.551    1.861   54.113  1.000  25.61
ANISOU  2151  N   THR   308  4234     2212     3285    536    -1421 -232
ATOM    2152  CA  THR   308  11.308    0.640   53.822  1.000  30.02
ANISOU  2152  CA  THR   308  3468     1939     5998    225    -1629 -194
ATOM    2153  C   THR   308  10.468   -0.611   54.030  1.000  25.42
ANISOU  2153  C   THR   308  2915     2190     4552    453    -626  -321
ATOM    2154  O   THR   308   9.523   -0.768   54.787  1.000  30.10
ANISOU  2154  O   THR   308  4042     3482     3912    614    -217  -125
ATOM    2155  CB  THR   308  12.581    0.531   54.688  1.000  26.09
ANISOU  2155  CB  THR   308  2701     3586     3626    242    -361  -456
ATOM    2156  OG1 THR   308  12.140    0.751   56.028  1.000  32.90
ANISOU  2156  OG1 THR   308  4146     4188     4167    504    745   -495
ATOM    2157  CG2 THR   308  13.577    1.594   54.256  1.000  31.43
ANISOU  2157  CG2 THR   308  3193     4702     4047    -577   -132  -538
ATOM    2158  N   SER   309  10.850   -1.591   53.217  1.000  24.73
ANISOU  2158  N   SER   309  2934     2092     4370    94     -574  -391
ATOM    2159  CA  SER   309  10.199   -2.897   53.230  1.000  25.19
ANISOU  2159  CA  SER   309  3793     2464     3316    -485   451   -230
ATOM    2160  C   SER   309  10.466   -3.691   54.512  1.000  24.06
ANISOU  2160  C   SER   309  2360     2888     3893    302    107   3 5
ATOM    2161  O   SER   309  11.565   -3.621   55.084  1.000  34.54
ANISOU  2161  O   SER   309  3626     2131     7366    -76    -1944 - 34
ATOM    2162  CB  SER   309  10.639   -3.700   52.012  1.000  26.52
ANISOU  2162  CB  SER   309  3970     2159     3948    167    580   -366
ATOM    2163  OG  SER   309  10.217   -5.039   52.148  1.000  26.34
ANISOU  2163  OG  SER   309  3198     2207     4604    156    -844  -260
ATOM    2164  N   LYS   310   9.494   -4.458   54.961  1.000  24.99
ANISOU  2164  N   LYS   310  3172     2459     3864    160    262   3 66
ATOM    2165  CA  LYS   310   9.651   -5.339   56.125  1.000  28.38
ANISOU  2165  CA  LYS   310  4191     3167     3427    764    278   2 8 1
ATOM    2166  C   LYS   310   9.941   -6.768   55.711  1.000  26.07
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ANISOU 2166 C    LYS  310 3371    2687   3846   168   -290 5 7 7
ATOM   2167 O    LYS  310 10.150  -7.684 56.515 1.000 33.48
ANISOU 2167 O    LYS  310 5267    3056   4400  -66   -450 10 7 3
ATOM   2168 CB   LYS  310 8.299   -5.367 56.858 1.000 37.77
ANISOU 2168 CB   LYS  310 5736    4695   3921   299   1818 1 8
ATOM   2169 CG   LYS  310 8.014   -4.214 57.806 1.000 40.55
ANISOU 2169 CG   LYS  310 6395    4716   4295   1525  1524 1 0 1
ATOM   2170 CD   LYS  310 6.798   -4.587 58.649 1.000 44.24
ANISOU 2170 CD   LYS  310 9091    4224   3495   1053  2816 5 8 4
ATOM   2171 CE   LYS  310 6.722   -6.109 58.818 1.000 59.12
ANISOU 2171 CE   LYS  310 9281    4577   8606   766   -82  2 4 7 8
ATOM   2172 NZ   LYS  310 6.088   -6.563 60.089 1.000 55.80
ANISOU 2172 NZ   LYS  310 4884    5742   10577  287   -947 4 7 9 6
ATOM   2173 N    ALA  311 9.896   -7.030 54.410 1.000 22.45
ANISOU 2173 N    ALA  311 2190    2402   3939   10 52 2 6 9
ATOM   2174 CA   ALA  311 10.360  -8.369 53.972 1.000 31.89
ANISOU 2174 CA   ALA  311 3771    2594   5753   434   -516 - 4 2 1
ATOM   2175 C    ALA  311 11.909  -8.459 53.833 1.000 23.30
ANISOU 2175 C    ALA  311 3907    2328   2616   1393  -593 1 1 2
ATOM   2176 CB   ALA  311 9.619   -8.665 52.674 1.000 27.94
ANISOU 2176 CB   ALA  311 2407    2878   5329  -355   542  - 6 7 2
ATOM   2177 OW   HOH  501 -6.477  10.237 44.256 1.000 15.66
ATOM   2178 OW   HOH  502 -9.349  16.189 51.010 1.000 19.26
ATOM   2179 OW   HOH  503 -1.489  3.653  34.560 1.000 15.78
ATOM   2180 OW   HOH  504 -10.499 18.731 50.182 1.000 16.19
ATOM   2181 OW   HOH  505 -8.612  16.958 47.640 1.000 17.30
ATOM   2182 OW   HOH  506 -10.255 20.839 42.881 1.000 19.05
ATOM   2183 OW   HOH  507 2.096   1.076  32.810 1.000 29.32
ATOM   2184 OW   HOH  508 -0.284  4.743  41.885 1.000 13.93
ATOM   2185 OW   HOH  509 -8.525  18.553 42.416 1.000 21.33
ATOM   2186 OW   HOH  510 3.165   2.604  43.488 1.000 24.59
ATOM   2187 OW   HOH  511 -6.282  19.386 52.341 1.000 18.98
ATOM   2188 OW   HOH  512 -6.826  24.638 46.833 1.000 21.77
ATOM   2189 OW   HOH  513 10.510  -4.344 46.092 1.000 25.88
ATOM   2190 OW   HOH  514 -0.806  16.964 40.372 1.000 16.54
ATOM   2191 OW   HOH  515 -1.269  18.855 42.411 1.000 15.76
ATOM   2192 OW   HOH  516 14.277  -5.146 40.175 1.000 15.53
ATOM   2193 OW   HOH  517 -0.123  21.538 40.640 1.000 17.22
ATOM   2194 OW   HOH  518 13.131  -0.967 51.791 1.000 31.17
ATOM   2195 OW   HOH  519 11.009  2.875  45.599 1.000 20.20
ATOM   2196 OW   HOH  520 5.789   13.543 45.996 1.000 17.36
ATOM   2197 OW   HOH  521 2.168   19.767 55.925 1.000 20.41
ATOM   2198 OW   HOH  522 8.487   15.960 34.949 1.000 15.40
ATOM   2199 OW   HOH  523 10.794  12.697 29.921 1.000 19.99
ATOM   2200 OW   HOH  524 -11.722 19.112 44.516 1.000 19.82
ATOM   2201 OW   HOH  525 1.672   -2.081 35.124 1.000 16.29
ATOM   2202 OW   HOH  526 9.651   15.283 32.342 1.000 20.37
ATOM   2203 OW   HOH  527 28.749  31.187 52.019 1.000 18.53
ATOM   2204 OW   HOH  528 15.326  11.252 32.041 1.000 19.60
ATOM   2205 OW   HOH  529 26.897  26.984 52.035 1.000 19.86
ATOM   2206 OW   HOH  530 13.528  11.592 50.915 1.000 16.17
ATOM   2207 OW   HOH  531 25.631  32.409 52.682 1.000 19.20
ATOM   2208 OW   HOH  532 18.287  6.835  52.185 1.000 18.49
ATOM   2209 OW   HOH  533 12.635  29.035 39.395 1.000 18.09
ATOM   2210 OW   HOH  534 10.797  31.968 45.659 1.000 20.66
ATOM   2211 OW   HOH  535 10.167  24.890 33.567 1.000 19.12
ATOM   2212 OW   HOH  536 23.530  24.122 58.531 1.000 20.39
ATOM   2213 OW   HOH  537 23.358  12.639 35.292 1.000 22.61
ATOM   2214 OW   HOH  538 25.879  28.699 50.264 1.000 19.44
ATOM   2215 OW   HOH  539 11.674  16.559 30.502 1.000 18.57
ATOM   2216 OW   HOH  540 18.515  27.775 40.042 1.000 22.23
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ATOM	2217	OW	HOH	541	21.233	20.367	33.996	1.000	21.45
ATOM	2218	OW	HOH	542	22.826	32.643	53.094	1.000	19.38
ATOM	2219	OW	HOH	543	19.670	22.387	35.310	1.000	20.05
ATOM	2220	OW	HOH	544	-13.591	21.996	61.494	1.000	49.93
ATOM	2221	OW	HOH	545	21.295	11.783	55.080	1.000	20.04
ATOM	2222	OW	HOH	546	5.431	2.533	51.677	1.000	28.11
ATOM	2223	OW	HOH	547	17.311	25.489	32.148	1.000	24.38
ATOM	2224	OW	HOH	548	17.427	7.744	33.008	1.000	20.78
ATOM	2225	OW	HOH	549	11.656	23.874	58.194	1.000	23.39
ATOM	2226	OW	HOH	550	8.037	14.987	53.326	1.000	33.52
ATOM	2227	OW	HOH	551	1.354	14.574	33.889	1.000	21.05
ATOM	2228	OW	HOH	552	11.203	20.116	63.686	1.000	24.59
ATOM	2229	OW	HOH	553	2.671	21.240	34.245	1.000	34.51
ATOM	2230	OW	HOH	554	6.339	19.832	30.751	1.000	26.36
ATOM	2231	OW	HOH	555	26.611	24.519	55.570	1.000	21.22
ATOM	2232	OW	HOH	556	27.669	17.156	53.039	1.000	25.86
ATOM	2233	OW	HOH	557	-14.392	19.977	44.154	1.000	25.03
ATOM	2234	OW	HOH	558	14.828	32.652	51.443	1.000	25.23
ATOM	2235	OW	HOH	559	17.937	7.207	54.915	1.000	20.59
ATOM	2236	OW	HOH	560	10.729	-8.875	31.499	1.000	24.65
ATOM	2237	OW	HOH	561	6.455	2.298	42.613	1.000	22.74
ATOM	2238	OW	HOH	562	13.784	31.245	44.166	1.000	27.75
ATOM	2239	OW	HOH	563	17.292	33.470	53.556	1.000	25.28
ATOM	2240	OW	HOH	564	11.210	1.109	49.697	1.000	23.33
ATOM	2241	OW	HOH	565	-11.339	25.246	41.370	1.000	26.08
ATOM	2242	OW	HOH	566	20.363	-8.375	38.242	1.000	30.07
ATOM	2243	OW	HOH	567	3.890	24.604	35.837	1.000	25.86
ATOM	2244	OW	HOH	568	5.334	11.875	43.937	1.000	25.45
ATOM	2245	OW	HOH	569	7.861	22.385	64.046	1.000	28.98
ATOM	2246	OW	HOH	570	7.754	-1.508	30.848	1.000	24.72
ATOM	2247	OW	HOH	571	6.297	3.583	28.471	1.000	33.06
ATOM	2248	OW	HOH	572	-15.790	28.800	51.855	1.000	30.09
ATOM	2249	OW	HOH	573	-5.388	20.310	38.883	1.000	23.64
ATOM	2250	OW	HOH	574	17.657	21.059	29.053	1.000	24.31
ATOM	2251	OW	HOH	575	8.763	20.920	66.102	1.000	24.81
ATOM	2252	OW	HOH	576	10.135	27.617	58.357	1.000	25.12
ATOM	2253	OW	HOH	577	7.795	1.060	29.730	1.000	29.00
ATOM	2254	OW	HOH	578	22.601	19.580	61.946	1.000	28.66
ATOM	2255	OW	HOH	579	8.859	4.744	27.898	1.000	26.12
ATOM	2256	OW	HOH	580	4.937	3.932	48.882	1.000	26.29
ATOM	2257	OW	HOH	581	17.096	5.891	35.057	1.000	23.31
ATOM	2258	OW	HOH	582	-16.337	31.047	64.719	1.000	54.01
ATOM	2259	OW	HOH	583	7.652	24.826	52.106	1.000	27.23
ATOM	2260	OW	HOH	584	7.174	24.915	29.292	1.000	26.60
ATOM	2261	OW	HOH	585	23.452	10.614	55.439	1.000	26.42
ATOM	2262	OW	HOH	586	12.640	26.413	58.676	1.000	27.15
ATOM	2263	OW	HOH	587	6.204	21.166	62.094	1.000	24.65
ATOM	2264	OW	HOH	588	2.385	0.810	37.616	1.000	19.92
ATOM	2265	OW	HOH	589	32.930	28.236	45.738	1.000	38.29
ATOM	2266	OW	HOH	590	-12.045	28.716	45.065	1.000	30.46
ATOM	2267	OW	HOH	591	0.219	13.612	36.120	1.000	27.12
ATOM	2268	OW	HOH	592	-2.525	3.881	43.344	1.000	26.67
ATOM	2269	OW	HOH	593	7.533	13.297	48.055	1.000	19.59
ATOM	2270	OW	HOH	594	-1.575	28.355	42.057	1.000	25.53
ATOM	2271	OW	HOH	595	11.209	-1.188	46.425	1.000	22.12
ATOM	2272	OW	HOH	596	5.684	-7.000	28.451	1.000	27.97
ATOM	2273	OW	HOH	597	28.868	19.406	51.825	1.000	27.72
ATOM	2274	OW	HOH	598	13.432	2.493	57.904	1.000	31.12
ATOM	2275	OW	HOH	599	8.196	7.483	27.148	1.000	29.99
ATOM	2276	OW	HOH	600	20.809	19.088	63.369	1.000	36.86
ATOM	2277	OW	HOH	601	21.352	10.656	34.614	1.000	30.60

ATOM	2278	OW	HOH	602	2.891	7.196	30.899	1.000	25.41
ATOM	2279	OW	HOH	603	8.260	26.496	34.561	1.000	35.71
ATOM	2280	OW	HOH	604	22.300	13.959	31.378	1.000	32.53
ATOM	2281	OW	HOH	605	15.689	35.750	48.870	1.000	31.17
ATOM	2282	OW	HOH	606	7.219	15.638	30.914	1.000	27.80
ATOM	2283	OW	HOH	607	-3.237	14.604	47.092	1.000	20.96
ATOM	2284	OW	HOH	608	17.543	10.581	33.561	1.000	23.51
ATOM	2285	OW	HOH	609	-1.899	36.370	44.261	1.000	32.64
ATOM	2286	OW	HOH	610	26.095	14.431	43.803	1.000	19.19
ATOM	2287	OW	HOH	611	27.664	13.183	41.954	1.000	26.48
ATOM	2288	OW	HOH	612	4.302	34.604	49.981	1.000	24.70
ATOM	2289	OW	HOH	613	-15.580	27.012	46.728	1.000	42.45
ATOM	2290	OW	HOH	614	1.615	35.544	50.347	1.000	23.78
ATOM	2291	OW	HOH	615	-10.137	34.259	49.033	1.000	23.94
ATOM	2292	OW	HOH	616	26.084	6.502	57.657	1.000	39.32
ATOM	2293	OW	HOH	617	-15.962	20.656	46.340	1.000	25.74
ATOM	2294	OW	HOH	618	6.113	29.517	40.143	1.000	29.43
ATOM	2295	OW	HOH	619	19.797	4.627	51.313	1.000	27.15
ATOM	2296	OW	HOH	620	-1.748	11.315	48.716	1.000	21.83
ATOM	2297	OW	HOH	621	11.099	34.289	44.259	1.000	27.15
ATOM	2298	OW	HOH	622	28.352	14.351	37.877	1.000	41.48
ATOM	2299	OW	HOH	623	-2.826	36.968	57.149	1.000	32.75
ATOM	2300	OW	HOH	624	16.983	9.258	29.962	1.000	32.82
ATOM	2301	OW	HOH	625	16.780	29.213	38.384	1.000	27.96
ATOM	2302	OW	HOH	626	1.632	17.213	33.689	1.000	23.17
ATOM	2303	OW	HOH	627	33.536	23.640	45.028	1.000	41.91
ATOM	2304	OW	HOH	628	23.821	6.059	50.174	1.000	34.22
ATOM	2305	OW	HOH	629	3.482	2.785	46.751	1.000	39.07
ATOM	2306	OW	HOH	630	20.218	24.803	60.918	1.000	50.12
ATOM	2307	OW	HOH	631	3.366	16.272	30.698	1.000	31.50
ATOM	2308	OW	HOH	632	18.871	11.791	31.384	1.000	30.78
ATOM	2309	OW	HOH	633	4.455	25.782	58.823	1.000	32.14
ATOM	2310	OW	HOH	634	24.721	5.202	40.319	1.000	40.13
ATOM	2311	OW	HOH	635	19.623	35.238	43.466	1.000	50.48
ATOM	2312	OW	HOH	636	22.789	26.242	60.797	1.000	26.58
ATOM	2313	OW	HOH	637	7.008	-4.809	54.039	1.000	33.89
ATOM	2314	OW	HOH	638	-15.821	18.362	42.559	1.000	29.61
ATOM	2315	OW	HOH	639	-11.847	15.711	52.841	1.000	25.21
ATOM	2316	OW	HOH	640	-1.948	13.411	35.401	1.000	30.41
ATOM	2317	OW	HOH	641	-14.293	21.937	42.145	1.000	27.58
ATOM	2318	OW	HOH	642	18.216	20.839	66.863	1.000	31.23
ATOM	2319	OW	HOH	643	9.836	36.288	48.178	1.000	44.21
ATOM	2320	OW	HOH	644	3.510	16.168	66.253	1.000	33.82
ATOM	2321	OW	HOH	645	7.571	33.398	41.687	1.000	37.96
ATOM	2322	OW	HOH	646	0.780	21.844	36.729	1.000	31.71
ATOM	2323	OW	HOH	647	21.244	-2.321	35.579	1.000	32.40
ATOM	2324	OW	HOH	648	3.027	25.244	69.907	1.000	36.84
ATOM	2325	OW	HOH	649	1.129	25.273	66.516	1.000	35.42
ATOM	2326	OW	HOH	650	14.646	7.560	60.327	1.000	46.42
ATOM	2327	OW	HOH	651	-8.287	26.381	37.998	1.000	29.17
ATOM	2328	OW	HOH	652	10.153	23.548	67.703	1.000	31.50
ATOM	2329	OW	HOH	653	28.906	22.258	38.969	1.000	32.66
ATOM	2330	OW	HOH	654	13.568	-4.482	31.517	1.000	26.94
ATOM	2331	OW	HOH	655	-12.635	17.106	55.637	1.000	26.85
ATOM	2332	OW	HOH	656	2.698	5.770	50.702	1.000	29.05
ATOM	2333	OW	HOH	657	-1.384	7.487	46.512	1.000	36.52
ATOM	2334	OW	HOH	658	3.880	19.246	31.498	1.000	31.50
ATOM	2335	OW	HOH	659	-1.400	31.406	64.001	1.000	56.62
ATOM	2336	OW	HOH	660	11.416	23.260	65.229	1.000	32.69
ATOM	2337	OW	HOH	661	15.994	14.673	25.680	1.000	36.46
ATOM	2338	OW	HOH	662	28.572	21.242	53.423	1.000	39.06

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ATOM   2339 OW  HOH  663  19.354   0.465   27.273 1.000 44.56
ATOM   2340 OW  HOH  664  24.969  27.026   38.838 1.000 35.41
ATOM   2341 OW  HOH  665  24.294   7.488   55.914 1.000 32.97
ATOM   2342 OW  HOH  666  19.540   7.882   31.178 1.000 30.04
ATOM   2343 OW  HOH  667  -9.236  32.988   57.241 1.000 39.20
ATOM   2344 OW  HOH  668   2.098  18.351   67.496 1.000 38.83
ATOM   2345 OW  HOH  669  11.390   3.245   56.270 1.000 37.56
ATOM   2346 OW  HOH  670 -21.413  24.449   52.026 1.000 44.66
ATOM   2347 OW  HOH  671 -14.575  19.220   55.240 1.000 30.91
ATOM   2348 OW  HOH  672  32.112  25.958   43.051 1.000 33.34
ATOM   2349 OW  HOH  673 -15.050  31.151   53.232 1.000 34.71
ATOM   2350 OW  HOH  674   2.941  -1.607   30.245 1.000 34.63
ATOM   2351 OW  HOH  675  26.951  14.544   34.757 1.000 49.17
ATOM   2352 OW  HOH  676  14.707  30.669   39.386 1.000 30.55
ATOM   2353 OW  HOH  677   5.203  18.009   68.080 1.000 43.41
ATOM   2354 OW  HOH  678  14.151   7.965   26.591 1.000 38.80
ATOM   2355 OW  HOH  679  24.470  24.261   41.443 1.000 31.28
ATOM   2356 OW  HOH  680  17.540   2.410   28.478 1.000 34.31
ATOM   2357 OW  HOH  681  25.992  20.593   34.326 1.000 39.66
ATOM   2358 OW  HOH  682  13.802  35.357   44.421 1.000 34.06
ATOM   2359 OW  HOH  683   1.087   2.355   45.456 1.000 35.39
ATOM   2360 OW  HOH  684  22.443  34.538   42.053 1.000 33.55
ATOM   2361 OW  HOH  685   4.419   4.720   27.356 1.000 48.02
ATOM   2362 OW  HOH  686 -15.830  34.507   51.877 1.000 50.63
ATOM   2363 OW  HOH  687 -15.217  29.490   48.887 1.000 33.54
ATOM   2364 OW  HOH  688  36.808  21.183   46.206 1.000 44.97
ATOM   2365 OW  HOH  689   3.756   1.312   29.272 1.000 35.16
ATOM   2366 OW  HOH  690  18.802  13.646   27.901 1.000 30.08
ATOM   2367 OW  HOH  691   6.997  17.521   29.313 1.000 47.70
ATOM   2368 OW  HOH  692  13.725  16.327   69.105 1.000 36.97
ATOM   2369 OW  HOH  693  22.369  22.161   60.503 1.000 44.09
ATOM   2370 OW  HOH  694  -5.429  31.620   42.219 1.000 33.40
ATOM   2371 OW  HOH  695  19.351  23.082   30.744 1.000 34.21
ATOM   2372 OW  HOH  696   6.897  22.414   29.376 1.000 36.59
ATOM   2373 OW  HOH  697  28.700   7.809   57.304 1.000 38.35
ATOM   2374 OW  HOH  698   3.224   0.679   39.819 1.000 24.13
ATOM   2375 OW  HOH  699  -4.634  33.717   62.593 1.000 32.26
ATOM   2376 OW  HOH  700  32.423  17.018   43.200 1.000 43.20
ATOM   2377 OW  HOH  701  12.119  25.228   68.342 1.000 39.95
ATOM   2378 OW  HOH  702   9.307  16.477   28.976 1.000 31.75
ATOM   2379 OW  HOH  703 -11.313  34.067   46.117 1.000 49.40
ATOM   2380 OW  HOH  704   7.774  31.390   65.371 1.000 39.12
ATOM   2381 OW  HOH  705  24.764   7.530   36.802 1.000 38.55
ATOM   2382 OW  HOH  706 -22.095  25.669   59.047 1.000 36.71
ATOM   2383 OW  HOH  707  14.509   9.840   68.854 1.000 50.38
ATOM   2384 OW  HOH  708 -10.129  28.722   42.036 1.000 38.92
ATOM   2385 OW  HOH  709  29.011  34.910   48.390 1.000 35.29
ATOM   2386 OW  HOH  710  15.822  31.612   42.021 1.000 33.61
ATOM   2387 OW  HOH  711  -1.996  17.676   33.645 1.000 49.57
ATOM   2388 OW  HOH  712  10.216  17.748   26.015 1.000 41.04
ATOM   2389 OW  HOH  713  23.535  29.642   37.371 1.000 43.47
ATOM   2390 OW  HOH  714  20.488  -7.214   35.599 1.000 45.99
ATOM   2391 OW  HOH  715  11.411  10.149   25.081 1.000 41.63
ATOM   2392 OW  HOH  716  19.329  -4.258   34.139 1.000 42.50
ATOM   2393 OW  HOH  717  13.688  26.799   66.321 1.000 43.74
ATOM   2394 OW  HOH  718 -10.751  33.064   54.747 1.000 40.47
ATOM   2395 OW  HOH  719  13.800  18.258   70.756 1.000 34.54
ATOM   2396 OW  HOH  720  17.151   5.815   28.003 1.000 40.80
ATOM   2397 OW  HOH  721   0.000   0.000   36.691 0.330 27.42
ATOM   2398 OW  HOH  722   0.000   0.000   41.559 0.330 37.77
ATOM   2399 OW  HOH  723  15.314   7.549   28.791 1.000 36.24
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ATOM	2400	OW	HOH	724	-1.663	19.944	39.196	1.000	33.87
ATOM	2401	OW	HOH	725	19.289	24.195	33.321	1.000	32.28
ATOM	2402	OW	HOH	726	0.000	0.000	31.798	0.330	50.38
ATOM	2403	OW	HOH	727	-1.223	38.165	59.229	1.000	31.24
ATOM	2404	OW	HOH	728	22.035	38.254	45.742	1.000	48.21
ATOM	2405	OW	HOH	729	28.388	16.248	63.044	1.000	31.59
ATOM	2406	OW	HOH	730	0.000	0.000	45.995	0.330	36.14
ATOM	2407	OW	HOH	731	2.984	29.007	40.091	1.000	36.08
ATOM	2408	OW	HOH	732	5.297	15.835	27.318	1.000	41.53
ATOM	2409	OW	HOH	733	17.347	10.778	27.373	1.000	35.27
ATOM	2410	OW	HOH	734	29.417	14.607	53.127	1.000	40.12
ATOM	2411	OW	HOH	735	4.222	-8.636	27.012	1.000	35.22
ATOM	2412	OW	HOH	736	-9.949	17.712	62.813	1.000	34.43
ATOM	2413	OW	HOH	737	13.960	-10.203	55.259	1.000	31.79
ATOM	2414	OW	HOH	738	11.831	-1.522	49.308	1.000	25.22
ATOM	2415	OW	HOH	739	2.896	4.247	29.596	1.000	38.64
ATOM	2416	OW	HOH	740	10.959	13.759	25.528	1.000	61.86
ATOM	2417	OW	HOH	741	0.864	17.227	30.557	1.000	50.71
ATOM	2418	OW	HOH	742	31.755	18.949	52.065	1.000	40.48
ATOM	2419	OW	HOH	743	21.678	-0.485	28.218	1.000	43.23
ATOM	2420	OW	HOH	744	10.583	16.397	75.211	1.000	45.04
ATOM	2421	OW	HOH	745	7.480	7.996	78.287	1.000	57.64
ATOM	2422	OW	HOH	746	24.067	35.122	40.297	1.000	41.95
ATOM	2423	OW	HOH	747	7.804	10.269	78.332	1.000	49.63
ATOM	2424	OW	HOH	748	22.131	40.645	45.806	1.000	49.69
ATOM	2425	OW	HOH	749	14.850	-4.647	33.872	1.000	42.88
ATOM	2426	OW	HOH	750	-12.930	32.504	55.211	1.000	37.15
ATOM	2427	OW	HOH	751	-4.832	35.986	43.333	1.000	44.39
ATOM	2428	OW	HOH	752	19.834	33.566	56.449	1.000	31.56
ATOM	2429	OW	HOH	753	3.363	22.310	29.844	1.000	42.02
ATOM	2430	OW	HOH	754	25.594	4.030	34.174	1.000	51.90
ATOM	2431	OW	HOH	755	28.036	35.859	46.448	1.000	39.50
ATOM	2432	OW	HOH	756	-12.951	16.294	61.787	1.000	40.94
ATOM	2433	OW	HOH	757	-10.870	26.452	38.737	1.000	44.85
ATOM	2434	OW	HOH	758	13.216	12.896	70.729	1.000	63.42
ATOM	2435	OW	HOH	759	-0.403	21.161	74.990	1.000	38.96
ATOM	2436	OW	HOH	760	-7.025	32.526	64.316	1.000	39.64
ATOM	2437	OW	HOH	761	-15.459	19.739	58.090	1.000	40.84
ATOM	2438	OW	HOH	762	-4.964	36.577	59.068	1.000	48.64
ATOM	2439	OW	HOH	763	26.807	35.717	50.036	1.000	43.54
ATOM	2440	OW	HOH	764	19.542	7.083	65.538	1.000	41.41
ATOM	2441	OW	HOH	765	3.709	35.837	42.709	1.000	33.78
ATOM	2442	OW	HOH	766	0.431	33.688	40.172	1.000	36.91
ATOM	2443	OW	HOH	767	18.620	5.064	64.617	1.000	45.76
ATOM	2444	OW	HOH	768	35.526	19.792	41.322	1.000	52.54
ATOM	2445	OW	HOH	769	19.671	7.789	67.717	1.000	43.44
ATOM	2446	OW	HOH	770	3.562	12.048	26.149	1.000	40.08
ATOM	2447	OW	HOH	771	20.245	35.637	53.927	1.000	52.16
ATOM	2448	OW	HOH	772	-20.588	25.640	61.573	1.000	58.60
ATOM	2449	OW	HOH	773	1.556	37.342	52.171	1.000	36.23
ATOM	2450	OW	HOH	774	8.340	0.668	49.382	1.000	107.24
ATOM	2451	OW	HOH	775	27.160	2.372	34.466	1.000	59.84
ATOM	2452	OW	HOH	776	6.575	19.271	25.545	1.000	36.68

ATOM	2453	OW	HOH	777	-17.605	29.205	62.661	1.000	56.83
ATOM	2454	OW	HOH	778	7.616	6.902	24.722	1.000	61.34
ATOM	2455	OW	HOH	779	19.749	10.700	68.006	1.000	65.22
ATOM	2456	W	HOH	780	7.281	-5.270	50.090	1.000	50.00
ATOM	2457	W	HOH	781	-6.809	28.483	40.515	1.000	50.00
ATOM	2458	W	HOH	782	9.990	17.263	38.636	1.000	50.00
ATOM	2459	W	HOH	783	5.767	-2.331	28.939	1.000	50.00
ATOM	2460	W	HOH	784	11.694	-0.118	24.984	1.000	50.00
ATOM	2461	W	HOH	785	24.442	7.952	47.994	1.000	50.00
ATOM	2462	W	HOH	786	14.251	36.889	46.491	1.000	50.00
ATOM	2463	W	HOH	787	5.759	26.477	33.851	1.000	50.00
ATOM	2464	W	HOH	788	-11.816	22.606	40.795	1.000	50.00
ATOM	2465	W	HOH	789	-2.531	5.579	45.829	1.000	50.00
ATOM	2466	W	HOH	790	-13.002	32.034	46.612	1.000	50.00
ATOM	2467	W	HOH	791	2.230	3.555	48.985	1.000	50.00
ATOM	2468	W	HOH	792	9.397	13.464	28.121	1.000	50.00
ATOM	2469	W	HOH	793	28.257	10.442	42.781	1.000	50.00
ATOM	2470	W	HOH	794	4.652	17.944	59.241	1.000	50.00
ATOM	2471	W	HOH	795	5.977	15.287	79.554	1.000	50.00
ATOM	2472	W	HOH	796	30.501	11.852	47.616	1.000	50.00
ATOM	2473	W	HOH	797	5.625	14.258	54.367	1.000	50.00
ATOM	2474	W	HOH	798	23.942	20.228	33.277	1.000	50.00
ATOM	2475	W	HOH	799	10.164	14.642	58.997	1.000	50.00
ATOM	2476	W	HOH	800	7.807	31.943	52.999	1.000	50.00
ATOM	2477	W	HOH	801	23.377	9.361	34.817	1.000	50.00
ATOM	2478	W	HOH	802	21.193	9.722	32.004	1.000	50.00
ATOM	2479	W	HOH	803	34.928	14.644	46.038	1.000	50.00
ATOM	2480	W	HOH	804	29.073	16.684	34.445	1.000	50.00
ATOM	2481	W	HOH	805	7.008	-2.049	51.872	1.000	50.00
ATOM	2482	W	HOH	806	25.363	7.860	45.531	1.000	50.00
ATOM	2483	W	HOH	807	30.704	8.207	55.971	1.000	50.00
ATOM	2484	W	HOH	808	33.072	24.900	40.599	1.000	50.00
ATOM	2485	W	HOH	809	-15.577	19.225	63.152	1.000	50.00
ATOM	2486	W	HOH	810	6.072	18.137	23.603	1.000	50.00
ATOM	2487	W	HOH	811	-7.214	39.940	55.639	1.000	50.00
ATOM	2488	W	HOH	812	5.509	18.517	74.919	1.000	50.00
ATOM	2489	W	HOH	813	33.845	9.908	56.672	1.000	50.00
ATOM	2490	W	HOH	814	0.421	35.779	42.931	1.000	50.00
ATOM	2491	W	HOH	815	35.282	21.705	48.656	1.000	50.00
ATOM	2492	W	HOH	816	39.344	22.173	46.871	1.000	50.00
ATOM	2493	W	HOH	817	-5.192	39.820	60.056	1.000	50.00
ATOM	2494	W	HOH	818	30.199	13.039	33.383	1.000	50.00
ATOM	2495	W	HOH	819	-4.860	36.454	61.731	1.000	50.00
ATOM	2496	W	HOH	820	-14.599	17.407	58.382	1.000	50.00
ATOM	2497	W	HOH	821	1.340	-0.111	41.711	0.500	50.00
ATOM	2498	W	HOH	822	34.512	23.218	52.108	1.000	50.00
ATOM	2499	W	HOH	823	32.136	12.571	52.190	1.000	50.00
ATOM	2500	W	HOH	824	13.525	-6.549	29.838	1.000	50.00
ATOM	2501	W	HOH	825	6.072	-4.141	27.534	1.000	50.00

STRUCTURE B

ATOM	1	CB	MET	1	31.030	11.882	57.066	1.000	50.96			
ANISOU	1	CB	MET	1	5663	3892	9809	1113	-2217	-554		
ATOM	2	CG	MET	1	30.206	12.690	56.086	1.000	51.63			
ANISOU	2	CG	MET	1	6595	3775	9246	691	-1891	169		
ATOM	3	SD	MET	1	28.694	11.848	55.559	1.000	40.50			
ANISOU	3	SD	MET	1	7003	3962	4424	833	-1535	-460		
ATOM	4	CE	MET	1	27.852	11.584	57.120	1.000	45.32			
ANISOU	4	CE	MET	1	8632	3912	4677	-239	-653	-1702		
ATOM	5	C	MET	1	31.587	13.367	58.999	1.000	52.14			
ANISOU	5	C	MET	1	6204	4752	8854	287	-2128	-63		
ATOM	6	O	MET	1	31.239	12.847	60.058	1.000	52.92			
ANISOU	6	O	MET	1	7381	5242	7483	1417	-4224	519		
ATOM	7	N	MET	1	33.170	11.646	58.275	1.000	57.78			
ANISOU	7	N	MET	1	4533	6034	11383	34	-1912	-811		
ATOM	8	CA	MET	1	32.156	12.587	57.819	1.000	54.62			
ANISOU	8	CA	MET	1	6441	4752	9560	137	-2012	-617		
ATOM	9	N	ASP	2	31.485	14.679	58.792	1.000	43.52			
ANISOU	9	N	ASP	2	3460	4866	8210	474	-2350	47		
ATOM	10	CA	ASP	2	30.759	15.471	59.796	1.000	41.69			
ANISOU	10	CA	ASP	2	4439	4678	6722	-309	-2603	-31		
ATOM	11	CB	ASP	2	31.206	16.912	59.644	1.000	37.89			
ANISOU	11	CB	ASP	2	3805	4768	5822	-304	-3473	266		
ATOM	12	CG	ASP	2	30.219	17.958	60.121	1.000	39.59			
ANISOU	12	CG	ASP	2	4511	4616	5916	15	-3218	589		
ATOM	13	OD1	ASP	2	29.325	17.637	60.933	1.000	45.10			
ANISOU	13	OD1	ASP	2	5866	4689	6581	-553	-1950	-625		
ATOM	14	OD2	ASP	2	30.363	19.121	59.663	1.000	42.05			
ANISOU	14	OD2	ASP	2	5994	4341	5643	-465	-3788	145		
ATOM	15	C	ASP	2	29.275	15.213	59.556	1.000	33.84			
ANISOU	15	C	ASP	2	4131	3634	5094	-59	-1682	-122		
ATOM	16	O	ASP	2	28.901	15.176	58.379	1.000	29.25			
ANISOU	16	O	ASP	2	2232	4393	4489	658	-390	-615		
ATOM	17	N	THR	3	28.467	15.029	60.597	1.000	29.41			
ANISOU	17	N	THR	3	4731	2636	3807	907	-2076	-284		
ATOM	18	CA	THR	3	27.046	14.764	60.421	1.000	28.55			
ANISOU	18	CA	THR	3	4602	2494	3753	597	-1006	-390		
ATOM	19	CB	THR	3	26.447	13.762	61.414	1.000	36.51			
ANISOU	19	CB	THR	3	7170	2209	4495	-791	-1996	52		
ATOM	20	OG1	THR	3	26.629	14.220	62.758	1.000	42.45			
ANISOU	20	OG1	THR	3	9519	2620	3989	-920	-1251	383		
ATOM	21	CG2	THR	3	27.153	12.412	61.315	1.000	50.26			
ANISOU	21	CG2	THR	3	9604	1863	7630	-602	-733	-333		
ATOM	22	C	THR	3	26.240	16.061	60.553	1.000	29.01			
ANISOU	22	C	THR	3	4535	2548	3939	738	-1079	99		
ATOM	23	O	THR	3	25.041	16.044	60.827	1.000	35.82			
ANISOU	23	O	THR	3	5149	2485	5976	390	524	-1246		
ATOM	24	N	THR	4	26.928	17.181	60.332	1.000	24.98			
ANISOU	24	N	THR	4	3874	2456	3162	542	-2040	-986		
ATOM	25	CA	THR	4	26.214	18.465	60.327	1.000	23.97			
ANISOU	25	CA	THR	4	3437	2426	3244	344	-1563	-375		
ATOM	26	CB	THR	4	27.183	19.650	60.408	1.000	26.77			
ANISOU	26	CB	THR	4	2636	2429	5105	651	-988	-923		
ATOM	27	OG1	THR	4	28.050	19.484	61.551	1.000	32.62			
ANISOU	27	OG1	THR	4	3398	2812	6184	195	-2081	-1134		
ATOM	28	CG2	THR	4	26.429	20.942	60.663	1.000	26.40			
ANISOU	28	CG2	THR	4	2373	2692	4967	533	-573	-1570		
ATOM	29	C	THR	4	25.325	18.577	59.097	1.000	21.64			
ANISOU	29	C	THR	4	3090	2760	2374	368	-750	-20		
ATOM	30	O	THR	4	25.738	18.264	57.980	1.000	21.58			
ANISOU	30	O	THR	4	2668	2629	2902	246	-560	-659		
ATOM	31	N	VAL	5	24.104	19.049	59.340	1.000	15.88			

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ANISOU 31   N   VAL  5   2505   2021   1508   -613  -630 -162
ATOM   32   CA  VAL  5   23.211  19.385  58.211  1.000 14.80
ANISOU 32   CA  VAL  5   2463   1893   1266   -594  -473  -87
ATOM   33   CB  VAL  5   21.742  19.402  58.606  1.000 16.09
ANISOU 33   CB  VAL  5   2476   1881   1757   -412  -406 502
ATOM   34   CG1 VAL  5   20.855  19.846  57.447  1.000 14.91
ANISOU 34   CG1 VAL  5   2468   1859   1337    9  -102  197
ATOM   35   CG2 VAL  5   21.310  17.994  59.074  1.000 21.15
ANISOU 35   CG2 VAL  5   3015   2345   2677   -700  -418 1198
ATOM   36   C   VAL  5   23.639  20.762  57.694  1.000 17.70
ANISOU 36   C   VAL  5   2893   2085   1749  -1137  -713 103
ATOM   37   O   VAL  5   23.532  21.759  58.419  1.000 17.35
ANISOU 37   O   VAL  5   2566   1978   2050   -698  -650 105
ATOM   38   N   PRO  6   24.150  20.845  56.479  1.000 13.23
ANISOU 38   N   PRO  6   1334   1597   2097   -162  -668 409
ATOM   39   CD  PRO  6   24.302  19.770  55.484  1.000 15.56
ANISOU 39   CD  PRO  6   1887   1850   2176   -309  -383 277
ATOM   40   CA  PRO  6   24.667  22.137  56.005  1.000 14.49
ANISOU 40   CA  PRO  6   1332   1740   2432   -218  -536 522
ATOM   41   CB  PRO  6   25.571  21.722  54.847  1.000 18.21
ANISOU 41   CB  PRO  6   2294   1740   2886   -224   130 434
ATOM   42   CG  PRO  6   25.132  20.378  54.409  1.000 20.37
ANISOU 42   CG  PRO  6   2708   2632   2399  -1078   38  -61
ATOM   43   C   PRO  6   23.576  23.091  55.510  1.000 14.59
ANISOU 43   C   PRO  6   1388   1712   2443   -406  -786 698
ATOM   44   O   PRO  6   22.408  22.743  55.295  1.000 13.06
ANISOU 44   O   PRO  6   1298   1547   2118   -283  -596 1 5
ATOM   45   N   THR  7   24.048  24.326  55.313  1.000 14.56
ANISOU 45   N   THR  7   1393   1678   2463   -380  -565 587
ATOM   46   CA  THR  7   23.288  25.428  54.771  1.000 13.28
ANISOU 46   CA  THR  7   1463   1584   1998   -469  -734 440
ATOM   47   CB  THR  7   23.121  26.572  55.799  1.000 14.44
ANISOU 47   CB  THR  7   1927   1652   1905   -348 -1257 3 2 9
ATOM   48   OG1 THR  7   22.454  26.102  56.998  1.000 18.44
ANISOU 48   OG1 THR  7   3136   2013   1858   -333  -829 176
ATOM   49   CG2 THR  7   22.290  27.719  55.261  1.000 14.98
ANISOU 49   CG2 THR  7   1390   1788   2513   -213  -727 412
ATOM   50   C   THR  7   23.973  26.005  53.539  1.000 14.62
ANISOU 50   C   THR  7   1144   2200   2212   -355  -693 704
ATOM   51   O   THR  7   25.192  26.257  53.600  1.000 17.21
ANISOU 51   O   THR  7   1284   2515   2738   -641  -840 975
ATOM   52   N   PHE  8   23.211  26.222  52.472  1.000 12.32
ANISOU 52   N   PHE  8   1165   1596   1919   -314  -534 370
ATOM   53   CA  PHE  8   23.692  26.869  51.283  1.000 13.31
ANISOU 53   CA  PHE  8   1554   1531   1971   -60  -295 343
ATOM   54   CB  PHE  8   23.724  25.933  50.067  1.000 13.71
ANISOU 54   CB  PHE  8   1479   1705   2025   -136  -232 234
ATOM   55   CG  PHE  8   24.635  24.746  50.258  1.000 13.68
ANISOU 55   CG  PHE  8   1225   1716   2257   -185   8  155
ATOM   56   CD1 PHE  8   24.147  23.503  50.628  1.000 14.10
ANISOU 56   CD1 PHE  8   1317   1710   2329   -93   231  221
ATOM   57   CD2 PHE  8   26.006  24.882  50.079  1.000 17.52
ANISOU 57   CD2 PHE  8   1239   2282   3134   -234   -56 917
ATOM   58   CE1 PHE  8   24.984  22.420  50.812  1.000 15.39
ANISOU 58   CE1 PHE  8   1473   1878   2497   -11   242  481
ATOM   59   CE2 PHE  8   26.840  23.807  50.271  1.000 17.73
ANISOU 59   CE2 PHE  8   1179   2259   3301   -157  -143 423
ATOM   60   CZ  PHE  8   26.348  22.567  50.654  1.000 17.12
ANISOU 60   CZ  PHE  8   1310   2437   2757   24  -382  978
ATOM   61   C   PHE  8   22.821  28.073  50.909  1.000 12.76
ANISOU 61   C   PHE  8   1401   1513   1935   -164  -145 442
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SUBSTITUTE SHEET (RULE 26)

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ATOM     62   O    PHE  8    21.602  28.033  51.079  1.000 13.18
ANISOU   62   O    PHE  8    1392    1295    2322    -256  -400 364
ATOM     63   N    SER  9    23.478  29.096  50.394  1.000 13.03
ANISOU   63   N    SER  9    1722    1636    1593    -565  -601 490
ATOM     64   CA   SER  9    22.861  30.224  49.718  1.000 12.55
ANISOU   64   CA   SER  9    1591    1468    1708    -392  -438 315
ATOM     65   CB   SER  9    23.743  31.472  49.761  1.000 15.41
ANISOU   65   CB   SER  9    2385    1833    1637    -915  -1057 78 3
ATOM     66   OG   SER  9    23.138  32.539  49.007  1.000 17.99
ANISOU   66   OG   SER  9    2504    1721    2611    -718  -999 924
ATOM     67   C    SER  9    22.520  29.868  48.276  1.000 12.72
ANISOU   67   C    SER  9    2040    1187    1606    -411  -576 476
ATOM     68   O    SER  9    23.397  29.495  47.478  1.000 16.18
ANISOU   68   O    SER  9    2265    2053    1830    -465  -381 7 3
ATOM     69   N    LEU  10   21.229  29.982  47.968  1.000 14.19
ANISOU   69   N    LEU  10   2154    1488    1750    -301  -699 174
ATOM     70   CA   LEU  10   20.798  29.714  46.596  1.000 14.62
ANISOU   70   CA   LEU  10   2243    1579    1734    -184  -784 224
ATOM     71   CB   LEU  10   19.291  29.883  46.436  1.000 14.72
ANISOU   71   CB   LEU  10   2222    1714    1657    -142  -657 -168
ATOM     72   CG   LEU  10   18.693  29.633  45.050  1.000 14.10
ANISOU   72   CG   LEU  10   2087    1557    1713    -702  -695 145
ATOM     73   CD1  LEU  10   18.986  28.214  44.582  1.000 16.23
ANISOU   73   CD1  LEU  10   2994    1578    1595    -554  -1132 8 7
ATOM     74   CD2  LEU  10   17.198  29.913  44.997  1.000 21.82
ANISOU   74   CD2  LEU  10   2180    2904    3206    -421  -1151 - 5 18
ATOM     75   C    LEU  10   21.531  30.639  45.626  1.000 15.87
ANISOU   75   C    LEU  10   2449    1785    1796    -491  -844 314
ATOM     76   O    LEU  10   21.962  30.199  44.553  1.000 16.33
ANISOU   76   O    LEU  10   2607    1816    1780    -601  -829 276
ATOM     77   N    ALA  11   21.669  31.917  45.986  1.000 17.17
ANISOU   77   N    ALA  11   2521    1889    2115    -607  -548 139
ATOM     78   CA   ALA  11   22.335  32.912  45.129  1.000 16.56
ANISOU   78   CA   ALA  11   2377    1884    2029    -732  -1033 3 0 2
ATOM     79   CB   ALA  11   22.199  34.259  45.805  1.000 20.05
ANISOU   79   CB   ALA  11   3210    1877    2529    -670  -674 259
ATOM     80   C    ALA  11   23.786  32.535  44.831  1.000 16.33
ANISOU   80   C    ALA  11   2319    2255    1629    -754  -988 4 3 4
ATOM     81   O    ALA  11   24.260  32.587  43.677  1.000 19.66
ANISOU   81   O    ALA  11   3115    2559    1795    -947  -560 619
ATOM     82   N    GLU  12   24.558  32.085  45.810  1.000 17.28
ANISOU   82   N    GLU  12   2686    1994    1884    -454  -1087 390
ATOM     83   CA   GLU  12   25.931  31.654  45.752  1.000 16.34
ANISOU   83   CA   GLU  12   2703    1674    1831    -474  -889 1033
ATOM     84   CB   GLU  12   26.527  31.477  47.158  1.000 16.09
ANISOU   84   CB   GLU  12   2440    1867    1808    -770  -820 1058
ATOM     85   CG   GLU  12   26.633  32.802  47.915  1.000 18.90
ANISOU   85   CG   GLU  12   2717    2127    2335    -1216 -1090 788
ATOM     86   CD   GLU  12   27.115  32.657  49.342  1.000 21.17
ANISOU   86   CD   GLU  12   3300    2547    2198    -1182 -1053 724
ATOM     87   OE1  GLU  12   27.538  31.558  49.756  1.000 22.07
ANISOU   87   OE1  GLU  12   2722    3014    2650    -720  -1365 797
ATOM     88   OE2  GLU  12   27.068  33.679  50.059  1.000 29.26
ANISOU   88   OE2  GLU  12   5764    2634    2722    -1279 -1848 476
ATOM     89   C    GLU  12   25.997  30.402  44.882  1.000 17.16
ANISOU   89   C    GLU  12   2044    2319    2158    -624  -715 481
ATOM     90   O    GLU  12   26.879  30.317  44.032  1.000 18.88
ANISOU   90   O    GLU  12   3200    2388    1583    -1004 -306 899
ATOM     91   N    LEU  13   25.083  29.441  45.049  1.000 17.32
ANISOU   91   N    LEU  13   2176    2300    2104    -659  -386 9 4
ATOM     92   CA   LEU  13   25.082  28.252  44.189  1.000 14.00
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ANISOU  92   CA   LEU  13   1734    1873    1713    -140  -170  4 9 8
ATOM    93   CB   LEU  13   24.003  27.248  44.620  1.000 15.37
ANISOU  93   CB   LEU  13   2205    1838    1795    -375  -149 4 6 5
ATOM    94   CG   LEU  13   24.154  26.554  45.967  1.000 14.52
ANISOU  94   CG   LEU  13   1913    1803    1799    -280  -204 4 4 2
ATOM    95   CD1  LEU  13   22.934  25.680  46.193  1.000 15.15
ANISOU  95   CD1  LEU  13   2174    1817    1766    -433   185  1 7 5
ATOM    96   CD2  LEU  13   25.411  25.690  46.067  1.000 17.54
ANISOU  96   CD2  LEU  13   2119    2043    2502    -38   -419 2 7 0
ATOM    97   C    LEU  13   24.876  28.626  42.725  1.000 16.54
ANISOU  97   C    LEU  13   2510    2062    1710    -222   -93  5 6 5
ATOM    98   O    LEU  13   25.548  28.122  41.821  1.000 18.28
ANISOU  98   O    LEU  13   2685    2514    1748    -687    75  2 5 9
ATOM    99   N    GLN  14   23.945  29.534  42.472  1.000 16.86
ANISOU  99   N    GLN  14   1970    2337    2100    -557  -683  8 3 8
ATOM   100   CA   GLN  14   23.657  30.015  41.132  1.000 18.63
ANISOU 100   CA   GLN  14   2761    2404    1915    -610  -802  5 6 8
ATOM   101   CB   GLN  14   22.421  30.923  41.130  1.000 19.39
ANISOU 101   CB   GLN  14   3166    2176    2025    -392  -918  9 7 7
ATOM   102   CG   GLN  14   21.108  30.250  41.460  1.000 19.00
ANISOU 102   CG   GLN  14   2879    2383    1957    -209  -725  4 6 0
ATOM   103   CD   GLN  14   19.974  31.227  41.766  1.000 18.83
ANISOU 103   CD   GLN  14   3139    2118    1897    -6  -1229  4 9 4
ATOM   104   OE1  GLN  14   20.177  32.317  42.314  1.000 26.10
ANISOU 104   OE1  GLN  14   3928    2407    3582    -98  -1172  - 2 4 1
ATOM   105   NE2  GLN  14   18.745  30.823  41.411  1.000 20.94
ANISOU 105   NE2  GLN  14   2900    2716    2340    -149  -840  4 5 4
ATOM   106   C    GLN  14   24.804  30.812  40.525  1.000 20.40
ANISOU 106   C    GLN  14   3226    2458    2065    -795  -712  9 3 7
ATOM   107   O    GLN  14   24.812  30.951  39.311  1.000 30.48
ANISOU 107   O    GLN  14   5089    4340    2152   -2337  -898  1 2 1 1
ATOM   108   N    GLN  15   25.734  31.309  41.329  1.000 20.35
ANISOU 108   N    GLN  15   3252    2452    2030   -1067  -240  4 9 7
ATOM   109   CA   GLN  15   26.909  32.041  40.884  1.000 21.88
ANISOU 109   CA   GLN  15   3184    3230    1901   -1152  -299  7 8 8
ATOM   110   CB   GLN  15   27.288  33.100  41.920  1.000 22.20
ANISOU 110   CB   GLN  15   2720    3162    2551   -1131  -770  6 9 1
ATOM   111   CG   GLN  15   26.450  34.358  41.954  1.000 25.73
ANISOU 111   CG   GLN  15   4496    2735    2545    -821  -233  1 2 6 9
ATOM   112   CD   GLN  15   26.325  35.021  43.306  1.000 35.76
ANISOU 112   CD   GLN  15   6010    3945    3631    -643  -229  - 1 3 5
ATOM   113   OE1  GLN  15   27.145  34.884  44.225  1.000 49.13
ANISOU 113   OE1  GLN  15   8425    5866    4378   -2857 -2197  - 5 6 4
ATOM   114   NE2  GLN  15   25.255  35.812  43.489  1.000 51.85
ANISOU 114   NE2  GLN  15   7190    5567    6945    62  3066  1 0 7
ATOM   115   C    GLN  15   28.069  31.079  40.625  1.000 23.93
ANISOU 115   C    GLN  15   3451    3513    2127    -990   145  8 8 4
ATOM   116   O    GLN  15   29.177  31.448  40.213  1.000 28.95
ANISOU 116   O    GLN  15   3535    4619    2845    -899   510  1 2 2 5
ATOM   117   N    GLY  16   27.828  29.794  40.891  1.000 25.86
ANISOU 117   N    GLY  16   4089    3282    2457    -889   -36  4 6 9
ATOM   118   CA   GLY  16   28.812  28.763  40.649  1.000 29.00
ANISOU 118   CA   GLY  16   4785    3562    2671    -677   765  2 5 5
ATOM   119   C    GLY  16   29.741  28.546  41.814  1.000 25.45
ANISOU 119   C    GLY  16   3427    3490    2754    -264  1422  6 7 3
ATOM   120   O    GLY  16   30.805  27.955  41.625  1.000 29.63
ANISOU 120   O    GLY  16   3925    3267    4068    -66  1997  5 2 3
ATOM   121   N    LEU  17   29.387  28.979  43.015  1.000 22.50
ANISOU 121   N    LEU  17   3266    2713    2569    -39   923  7 3 3
ATOM   122   CA   LEU  17   30.234  28.727  44.172  1.000 21.73
ANISOU 122   CA   LEU  17   2299    2931    3025    -282   867  7 4 8
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ATOM     123    CB   LEU   17    30.124   29.921   45.132  1.000 21.23
ANISOU   123    CB   LEU   17    2137     2858     3071     -620   669   711
ATOM     124    CG   LEU   17    30.354   31.274   44.431  1.000 26.12
ANISOU   124    CG   LEU   17    2708     2965     4253     -889   1342 931
ATOM     125    CD1  LEU   17    29.962   32.444   45.305  1.000 29.81
ANISOU   125    CD1  LEU   17    2515     2924     5885     -396   464   303
ATOM     126    CD2  LEU   17    31.808   31.350   43.974  1.000 32.84
ANISOU   126    CD2  LEU   17    2845     3703     5930     -281   1871 2114
ATOM     127    C    LEU   17    29.886   27.456   44.936  1.000 19.36
ANISOU   127    C    LEU   17    2081     2819     2455     -239   545   580
ATOM     128    O    LEU   17    28.773   26.920   44.848  1.000 21.11
ANISOU   128    O    LEU   17    2284     3004     2734     -444   107   1055
ATOM     129    N    HIS   18    30.838   26.952   45.706  1.000 21.02
ANISOU   129    N    HIS   18    2124     2752     3109     -314   193   491
ATOM     130    CA   HIS   18    30.678   25.814   46.615  1.000 18.11
ANISOU   130    CA   HIS   18    1569     2996     2315     -460   -28   361
ATOM     131    CB   HIS   18    29.655   26.149   47.702  1.000 21.25
ANISOU   131    CB   HIS   18    1731     3332     3010     -45    282   354
ATOM     132    CG   HIS   18    29.796   27.515   48.283  1.000 23.28
ANISOU   132    CG   HIS   18    2234     3612     2999     211    -46   -20
ATOM     133    CD2  HIS   18    28.898   28.535   48.344  1.000 24.53
ANISOU   133    CD2  HIS   18    3112     3479     2728     532    41    440
ATOM     134    ND1  HIS   18    30.940   27.977   48.895  1.000 26.72
ANISOU   134    ND1  HIS   18    2938     4039     3173     -151   -569  3 8
ATOM     135    CE1  HIS   18    30.756   29.218   49.307  1.000 29.80
ANISOU   135    CE1  HIS   18    4476     3775     3071     -542   -562  237
ATOM     136    NE2  HIS   18    29.524   29.581   48.985  1.000 30.03
ANISOU   136    NE2  HIS   18    4752     3282     3377     216    -148  338
ATOM     137    C    HIS   18    30.266   24.528   45.917  1.000 18.57
ANISOU   137    C    HIS   18    1943     3084     2028     -951   30    590
ATOM     138    O    HIS   18    29.594   23.682   46.532  1.000 19.92
ANISOU   138    O    HIS   18    1949     3125     2493     -777   -87   995
ATOM     139    N    GLN   19    30.647   24.340   44.658  1.000 19.24
ANISOU   139    N    GLN   19    2329     2700     2282     -256   298   494
ATOM     140    CA   GLN   19    30.119   23.206   43.908  1.000 21.51
ANISOU   140    CA   GLN   19    3249     2431     2492     -228   597   318
ATOM     141    CB   GLN   19    30.446   23.307   42.406  1.000 22.89
ANISOU   141    CB   GLN   19    3231     3058     2408     -148   463   244
ATOM     142    CG   GLN   19    29.738   24.453   41.698  1.000 25.83
ANISOU   142    CG   GLN   19    3445     3712     2658     -384   -407  568
ATOM     143    CD   GLN   19    28.223   24.470   41.747  1.000 31.56
ANISOU   143    CD   GLN   19    3439     4722     3832     -252   -988  357
ATOM     144    OE1  GLN   19    27.521   23.640   41.153  1.000 38.51
ANISOU   144    OE1  GLN   19    3869     3649     7115     377    -3045 686
ATOM     145    NE2  GLN   19    27.621   25.433   42.475  1.000 33.32
ANISOU   145    NE2  GLN   19    3303     5695     3663     647    -1109 449
ATOM     146    C    GLN   19    30.578   21.873   44.485  1.000 20.32
ANISOU   146    C    GLN   19    2224     2710     2785     -60    514   394
ATOM     147    O    GLN   19    29.806   20.900   44.473  1.000 19.08
ANISOU   147    O    GLN   19    1888     2451     2910     221    257   743
ATOM     148    N    ASP   20    31.800   21.761   44.999  1.000 24.09
ANISOU   148    N    ASP   20    3001     3507     2645     -773   -507  415
ATOM     149    CA   ASP   20    32.268   20.498   45.553  1.000 21.82
ANISOU   149    CA   ASP   20    1707     3811     2774     -327   -58   357
ATOM     150    CB   ASP   20    33.780   20.527   45.779  1.000 26.34
ANISOU   150    CB   ASP   20    1594     4552     3863     -962   236   490
ATOM     151    CG   ASP   20    34.596   20.517   44.503  1.000 34.45
ANISOU   151    CG   ASP   20    2531     5859     4701     -1208  1213  -280
ATOM     152    OD1  ASP   20    34.177   19.982   43.457  1.000 33.11
ANISOU   152    OD1  ASP   20    3768     4173     4640     -311   1233  -375
ATOM     153    OD2  ASP   20    35.725   21.056   44.532  1.000 49.71
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ANISOU 153   OD2 ASP  20   3445      9922      5519     -3116 1710 5 3
ATOM   154   C   ASP  20   31.538   20.179   46.862   1.000 21.03
ANISOU 154   C   ASP  20   1876      2702      3412     -231  616  3 8 8
ATOM   155   O   ASP  20   31.118   19.038   47.075   1.000 20.80
ANISOU 155   O   ASP  20   1162      2583      4157     -72  -139 55 0
ATOM   156   N   GLU  21   31.359   21.177   47.729   1.000 17.88
ANISOU 156   N   GLU  21   1218      2751      2824     -263 -148 5 1 1
ATOM   157   CA  GLU  21   30.599   20.999   48.965   1.000 16.80
ANISOU 157   CA  GLU  21   1128      2173      3083     -96   46  3 9 4
ATOM   158   CB  GLU  21   30.654   22.304   49.781   1.000 20.23
ANISOU 158   CB  GLU  21   1366      2620      3701      5   -262  -2 1 0
ATOM   159   CG  GLU  21   32.040   22.669   50.307   1.000 24.60
ANISOU 159   CG  GLU  21   1660      3325      4359     -221 -654 -3 0 1
ATOM   160   CD  GLU  21   32.860   23.565   49.402   1.000 28.46
ANISOU 160   CD  GLU  21   1191      4348      5275     -498 -1597 11 2 5
ATOM   161   OE1 GLU  21   33.751   24.294   49.919   1.000 31.17
ANISOU 161   OE1 GLU  21   2360      4428      5057     -1039 -1094 3 4 9
ATOM   162   OE2 GLU  21   32.664   23.590   48.171   1.000 31.16
ANISOU 162   OE2 GLU  21   2734      3901      5203     -1519 -1565 11 2 3
ATOM   163   C   GLU  21   29.159   20.594   48.689   1.000 16.44
ANISOU 163   C   GLU  21   1271      2295      2679     -165  -53  4 3 0
ATOM   164   O   GLU  21   28.599   19.700   49.329   1.000 14.30
ANISOU 164   O   GLU  21   1271      2257      1907     -417 -301 3 6
ATOM   165   N   PHE  22   28.548   21.257   47.708   1.000 16.14
ANISOU 165   N   PHE  22   1440      2441      2253     -316  -28  3 2 8
ATOM   166   CA  PHE  22   27.155   20.947   47.327   1.000 15.36
ANISOU 166   CA  PHE  22   1530      2012      2294     -262 -173 28 1
ATOM   167   CB  PHE  22   26.612   21.967   46.343   1.000 15.43
ANISOU 167   CB  PHE  22   1863      2056      1944     -316 -247 18 4
ATOM   168   CG  PHE  22   25.119   21.932   46.077   1.000 15.59
ANISOU 168   CG  PHE  22   1822      2141      1962     -299 -170 5 6 1
ATOM   169   CD1 PHE  22   24.218   21.987   47.129   1.000 17.03
ANISOU 169   CD1 PHE  22   1923      2605      1943     -410 -162 - 4 0
ATOM   170   CD2 PHE  22   24.606   21.856   44.797   1.000 14.84
ANISOU 170   CD2 PHE  22   1541      2083      2013      51  -94  -1 5 5
ATOM   171   CE1 PHE  22   22.861   21.938   46.906   1.000 15.96
ANISOU 171   CE1 PHE  22   1844      1805      2414     -159  -64  1 7 6
ATOM   172   CE2 PHE  22   23.243   21.797   44.551   1.000 15.81
ANISOU 172   CE2 PHE  22   1600      1993      2416     -261 -190 -1 7 6
ATOM   173   CZ  PHE  22   22.360   21.853   45.612   1.000 14.18
ANISOU 173   CZ  PHE  22   1427      1430      2531     -105 -164 3 2 5
ATOM   174   C   PHE  22   27.049   19.515   46.792   1.000 16.23
ANISOU 174   C   PHE  22   1325      2042      2797     -110  164  1 0 2
ATOM   175   O   PHE  22   26.183   18.751   47.229   1.000 13.24
ANISOU 175   O   PHE  22   1411      1743      1876      105 -194 39 1
ATOM   176   N   ARG  23   27.888   19.097   45.853   1.000 15.45
ANISOU 176   N   ARG  23   1585      2313      1971     -167  -80  2 8 9
ATOM   177   CA  ARG  23   27.865   17.746   45.325   1.000 15.49
ANISOU 177   CA  ARG  23   809 2443       2634     50  -41   - 2 2
ATOM   178   CB  ARG  23   28.928   17.539   44.248   1.000 17.81
ANISOU 178   CB  ARG  23   966 3142       2658     -128  43  -1 6 7
ATOM   179   CG  ARG  23   28.470   17.928   42.860   1.000 25.86
ANISOU 179   CG  ARG  23   2719      4636      2470     -758 -176 - 4 9
ATOM   180   CD  ARG  23   29.485   17.370   41.867   1.000 34.68
ANISOU 180   CD  ARG  23   5148      4847      3183     -1532 1634 -5 4 8
ATOM   181   NE  ARG  23   30.660   18.253   41.877   1.000 31.13
ANISOU 181   NE  ARG  23   2799      4194      4836      305  747  6 6
ATOM   182   CZ  ARG  23   30.703   19.424   41.244   1.000 34.24
ANISOU 182   CZ  ARG  23   2749      4844      5418     -757  239  7 6 4
ATOM   183   NH1 ARG  23   29.647   19.856   40.551   1.000 28.06
ANISOU 183   NH1 ARG  23   2714      3685      4263     -721  555  18 1
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ATOM     184  NH2 ARG   23    31.830  20.114  41.340  1.000 36.08
ANISOU   184  NH2 ARG   23    2261    5328    6121    -562   775  - 86
ATOM     185  C   ARG   23    28.045  16.713  46.420  1.000 15.06
ANISOU   185  C   ARG   23    1071    2061    2589     167   -32  -234
ATOM     186  O   ARG   23    27.335  15.687  46.410  1.000 16.28
ANISOU   186  O   ARG   23    1443    2244    2497    -118   -71  -277
ATOM     187  N   ARG   24    28.952  16.988  47.353  1.000 15.27
ANISOU   187  N   ARG   24    1024    2156    2623     -52   -21   2 9
ATOM     188  CA  ARG   24    29.193  16.003  48.430  1.000 17.70
ANISOU   188  CA  ARG   24    1443    2589    2693     275   - 2 215
ATOM     189  CB  ARG   24    30.466  16.422  49.148  1.000 21.11
ANISOU   189  CB  ARG   24    1244    3486    3289     484   -257 384
ATOM     190  CG  ARG   24    31.787  16.217  48.429  1.000 30.46
ANISOU   190  CG  ARG   24    1438    5078    5057     426    441  308
ATOM     191  CD  ARG   24    32.979  16.537  49.330  1.000 33.50
ANISOU   191  CD  ARG   24    1163    5831    5736     208    370  458
ATOM     192  NE  ARG   24    33.636  17.804  49.071  1.000 51.46
ANISOU   192  NE  ARG   24    5800    7316    6437   -2596  -1688 1165
ATOM     193  CZ  ARG   24    33.973  18.776  49.903  1.000 46.72
ANISOU   193  CZ  ARG   24    4738    6888    6124   -1719  -1822 1316
ATOM     194  NH1 ARG  \24    33.731  18.728  51.213  1.000 44.24
ANISOU   194  NH1 ARG   24    2650    6998    7160    -392   1001 8 4
ATOM     195  NH2 ARG   24    34.579  19.871  49.448  1.000 42.82
ANISOU   195  NH2 ARG   24    5339    4428    6503     513   -991 1216
ATOM     196  C   ARG   24    27.972  15.887  49.334  1.000 17.16
ANISOU   196  C   ARG   24    1549    2071    2900     129    140  295
ATOM     197  O   ARG   24    27.536  14.779  49.713  1.000 15.38
ANISOU   197  O   ARG   24    1706    1890    2247      72   -388   1 0 4
ATOM     198  N   CYS   25    27.355  17.011  49.696  1.000 12.91
ANISOU   198  N   CYS   25    907  1824    2176    -254   -386   151
ATOM     199  CA  CYS   25    26.105  17.040  50.454  1.000 12.45
ANISOU   199  CA  CYS   25    942  1838    1949    -178   -480   8 1
ATOM     200  CB  CYS   25    25.660  18.491  50.697  1.000 11.67
ANISOU   200  CB  CYS   25    1150    1759    1527    -136   -604 184
ATOM     201  SG  CYS   25    23.973  18.580  51.425  1.000 14.90
ANISOU   201  SG  CYS   25    1465    1593    2602    -164   -26  - 18
ATOM     202  C   CYS   25    25.001  16.225  49.769  1.000 11.67
ANISOU   202  C   CYS   25    893  1897    1645    -283   -64  - 86
ATOM     203  O   CYS   25    24.360  15.377  50.390  1.000 12.73
ANISOU   203  O   CYS   25    1347    1426    2064    -233   -196 123
ATOM     204  N   LEU   26    24.798  16.461  48.470  1.000 11.70
ANISOU   204  N   LEU   26    1102    1530    1814    -128   -390 1
ATOM     205  CA  LEU   26    23.766  15.716  47.735  1.000 11.11
ANISOU   205  CA  LEU   26    1190    1476    1556    -238   -79  -194
ATOM     206  CB  LEU   26    23.674  16.198  46.285  1.000 11.54
ANISOU   206  CB  LEU   26    1345    1522    1518     -75   -84  -202
ATOM     207  CG  LEU   26    23.242  17.638  46.019  1.000 12.42
ANISOU   207  CG  LEU   26    1199    1542    1978    -153   -167 - 4 0
ATOM     208  CD1 LEU   26    23.414  17.993  44.539  1.000 14.77
ANISOU   208  CD1 LEU   26    1428    1916    2270      43  131 401
ATOM     209  CD2 LEU   26    21.814  17.885  46.466  1.000 14.45
ANISOU   209  CD2 LEU   26    1384    2061    2047     264   -32  321
ATOM     210  C   LEU   26    23.979  14.209  47.780  1.000 12.93
ANISOU   210  C   LEU   26    1360    1542    2011    -121   -486 -107
ATOM     211  O   LEU   26    23.011  13.461  48.008  1.000 13.78
ANISOU   211  O   LEU   26    1660    1450    2125    -305   -426 - 51
ATOM     212  N   ARG   27    25.196  13.721  47.576  1.000 14.09
ANISOU   212  N   ARG   27    1518    1729    2108     151   -530 -105
ATOM     213  CA  ARG   27    25.491  12.283  47.574  1.000 15.39
ANISOU   213  CA  ARG   27    2260    1690    1897     186   141  -354
ATOM     214  CB  ARG   27    26.846  12.122  46.900  1.000 17.04
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ANISOU 214   CB  ARG  27   2259    2356    1861     517    49 - 2 4 8
ATOM   215   CG  ARG  27   27.502  10.780  46.801   1.000 25.08
ANISOU 215   CG  ARG  27   3110    2837    3583    1105   606  - 3 9 9
ATOM   216   CD  ARG  27   28.995  10.992  46.457   1.000 30.32
ANISOU 216   CD  ARG  27   2976    3836    4710    1190   720  -1381
ATOM   217   NE  ARG  27   29.818  11.407  47.581   1.000 36.51
ANISOU 217   NE  ARG  27   3633    4937    5301     121   391  -1429
ATOM   218   CZ  ARG  27   30.988  12.019  47.560   1.000 38.07
ANISOU 218   CZ  ARG  27   3334    5192    5941     364   661  -1776
ATOM   219   NH1 ARG  27   31.565  12.340  46.401   1.000 48.56
ANISOU 219   NH1 ARG  27   4482    7688    6280   -1305   736  -1326
ATOM   220   NH2 ARG  27   31.606  12.328  48.701   1.000 40.23
ANISOU 220   NH2 ARG  27   2891    6127    6266     457   717  -2463
ATOM   221   C   ARG  27   25.479  11.630  48.949   1.000 14.66
ANISOU 221   C   ARG  27   1720    1617    2233     135   -33  - 4 2
ATOM   222   O   ARG  27   24.968  10.499  49.072   1.000 17.44
ANISOU 222   O   ARG  27   1981    1533    3114      98  -394   155
ATOM   223   N   ASP  28   26.031  12.308  49.973   1.000 13.72
ANISOU 223   N   ASP  28   1703    1366    2146     317  -327 319
ATOM   224   CA  ASP  28   26.227  11.701  51.277   1.000 15.33
ANISOU 224   CA  ASP  28   1886    1704    2234     538  -247 391
ATOM   225   CB  ASP  28   27.541  12.280  51.842   1.000 18.31
ANISOU 225   CB  ASP  28   2092    2709    2155     186  -465 544
ATOM   226   CG  ASP  28   28.785  11.875  51.083   1.000 23.06
ANISOU 226   CG  ASP  28   2002    3583    3176     -96   -50   478
ATOM   227   OD1 ASP  28   28.741  10.904  50.290   1.000 25.09
ANISOU 227   OD1 ASP  28   2515    2855    4163     830   406   440
ATOM   228   OD2 ASP  28   29.831  12.528  51.283   1.000 30.05
ANISOU 228   OD2 ASP  28   1919    4262    5236    -216  -695 1058
ATOM   229   C   ASP  28   25.092  11.910  52.267   1.000 14.90
ANISOU 229   C   ASP  28   2071    1435    2154     411  -203 217
ATOM   230   O   ASP  28   24.967  11.093  53.200   1.000 14.50
ANISOU 230   O   ASP  28   1878    1501    2132     444  -265 179
ATOM   231   N   LYS  29   24.317  12.975  52.096   1.000 12.90
ANISOU 231   N   LYS  29   1487    1290    2126      77  -276   136
ATOM   232   CA  LYS  29   23.265  13.368  53.029   1.000 12.95
ANISOU 232   CA  LYS  29   1369    1649    1904       8  -390   1 4
ATOM   233   CB  LYS  29   23.699  14.653  53.763   1.000 12.71
ANISOU 233   CB  LYS  29   1105    1581    2145     209  -359 - 3 0
ATOM   234   CG  LYS  29   25.016  14.504  54.518   1.000 16.11
ANISOU 234   CG  LYS  29   1413    1998    2711      21  -818  - 1 6 1
ATOM   235   CD  LYS  29   25.449  15.727  55.309   1.000 18.24
ANISOU 235   CD  LYS  29   2500    1989    2442     -47 -1140  - 1 4
ATOM   236   CE  LYS  29   26.789  15.445  56.002   1.000 19.36
ANISOU 236   CE  LYS  29   2038    3171    2148     -90  -822 - 7 2 5
ATOM   237   NZ  LYS  29   27.515  16.696  56.351   1.000 26.61
ANISOU 237   NZ  LYS  29   2592    3146    4373    -309 -1571 - 3 5 3
ATOM   238   C   LYS  29   21.888  13.550  52.386   1.000 11.62
ANISOU 238   C   LYS  29   1432    1153    1831      52  -290   2 4
ATOM   239   O   LYS  29   20.877  13.028  52.880   1.000 12.57
ANISOU 239   O   LYS  29   1426    1556    1792     -97  -282 1 0 0
ATOM   240   N   GLY  30   21.779  14.280  51.284   1.000 11.98
ANISOU 240   N   GLY  30   1359    1454    1741      -5  -310   7 8
ATOM   241   CA  GLY  30   20.510  14.478  50.562   1.000 10.93
ANISOU 241   CA  GLY  30   1192    1497    1465    -158  -116 - 1 8
ATOM   242   C   GLY  30   19.544  15.433  51.242   1.000 11.15
ANISOU 242   C   GLY  30   1137    1143    1955    -260  -154 - 1 3 1
ATOM   243   O   GLY  30   18.337  15.374  50.963   1.000 11.26
ANISOU 243   O   GLY  30   1247    1082    1949     -56  -419 1 0 4
ATOM   244   N   LEU  31   20.064  16.278  52.129   1.000 10.54
ANISOU 244   N   LEU  31   1292     894    1821     -98  -367   8 9
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ATOM    245  CA  LEU  31   19.272   17.324   52.803  1.000 11.07
ANISOU  245  CA  LEU  31    1345     1111     1752     46  -520  - 33
ATOM    246  CB  LEU  31   18.465   16.777   53.975  1.000 14.44
ANISOU  246  CB  LEU  31    1753     1671     2062   -284   -80  - 178
ATOM    247  CG  LEU  31   19.113   16.629   55.333  1.000 17.74
ANISOU  247  CG  LEU  31    2456     2220     2064   -172  -115  499
ATOM    248  CD1 LEU  31   18.220   15.978   56.371  1.000 26.19
ANISOU  248  CD1 LEU  31    2716     4691     2543  -1224  -213 1016
ATOM    249  CD2 LEU  31   20.388   15.821   55.182  1.000 22.77
ANISOU  249  CD2 LEU  31    3121     2633     2899    650   -18 1487
ATOM    250  C   LEU  31   20.176   18.498   53.195  1.000 10.95
ANISOU  250  C   LEU  31    1041     1129     1989    180  -318 - 223
ATOM    251  O   LEU  31   21.376   18.314   53.424  1.000 10.89
ANISOU  251  O   LEU  31    1015     1171     1952     69  -160  204
ATOM    252  N   PHE  32   19.570   19.688   53.219  1.000 11.42
ANISOU  252  N   PHE  32    1134      995     2211     75  -273   6 5
ATOM    253  CA  PHE  32   20.280   20.916   53.545  1.000 10.33
ANISOU  253  CA  PHE  32    1071     1152     1703    -57  -288 -3 3
ATOM    254  CB  PHE  32   21.244   21.307   52.422  1.000 12.25
ANISOU  254  CB  PHE  32    1054     1729     1872   -113  -173 - 5
ATOM    255  CG  PHE  32   20.624   21.346   51.041  1.000 11.94
ANISOU  255  CG  PHE  32    1158     1572     1809   -281  -148  122
ATOM    256  CD1 PHE  32   20.522   20.188   50.270  1.000 11.12
ANISOU  256  CD1 PHE  32    1070     1308     1846   -182  -458  318
ATOM    257  CD2 PHE  32   20.145   22.528   50.513  1.000 12.14
ANISOU  257  CD2 PHE  32    1618     1353     1639   -300  -185  - 47
ATOM    258  CE1 PHE  32   19.943   20.212   49.015  1.000 12.00
ANISOU  258  CE1 PHE  32    1342     1377     1840   -301  -468  33 2
ATOM    259  CE2 PHE  32   19.553   22.534   49.266  1.000 12.79
ANISOU  259  CE2 PHE  32    1858     1543     1457    -86   -34  2 8
ATOM    260  CZ  PHE  32   19.416   21.376   48.503  1.000 11.50
ANISOU  260  CZ  PHE  32    1623     1414     1331    -76  -272  217
ATOM    261  C   PHE  32   19.310   22.071   53.762  1.000  9.82
ANISOU  261  C   PHE  32    1015     1042     1674   -120  -367 - 77
ATOM    262  O   PHE  32   18.165   21.990   53.285  1.000 11.29
ANISOU  262  O   PHE  32    1097     1286     1906    -95  -495 - 77
ATOM    263  N   TYR  33   19.736   23.099   54.493  1.000 12.68
ANISOU  263  N   TYR  33    1606     1053     2158    -57  -766 -15 9
ATOM    264  CA  TYR  33   18.945   24.335   54.607  1.000 10.64
ANISOU  264  CA  TYR  33    1491     1173     1380    -77   -97  - 132
ATOM    265  CB  TYR  33   19.141   25.022   55.955  1.000 10.85
ANISOU  265  CB  TYR  33    1019     1725     1379   -260  -224  - 164
ATOM    266  CG  TYR  33   18.545   24.331   57.156  1.000 10.71
ANISOU  266  CG  TYR  33    1173     1552     1342    -45  -230  - 117
ATOM    267  CD1 TYR  33   17.266   24.643   57.619  1.000 11.64
ANISOU  267  CD1 TYR  33    1385     1441     1596    -68    83  - 94
ATOM    268  CE1 TYR  33   16.694   24.023   58.719  1.000 13.60
ANISOU  268  CE1 TYR  33    1879     1483     1804   -147   339  - 26
ATOM    269  CD2 TYR  33   19.273   23.364   57.853  1.000 14.04
ANISOU  269  CD2 TYR  33    1604     2040     1689    132  -509 127
ATOM    270  CE2 TYR  33   18.711   22.752   58.964  1.000 15.75
ANISOU  270  CE2 TYR  33    1872     2227     1886   -187  -701 4 33
ATOM    271  CZ  TYR  33   17.438   23.078   59.387  1.000 16.02
ANISOU  271  CZ  TYR  33    2205     1939     1942   -332  -154 3 00
ATOM    272  OH  TYR  33   16.919   22.454   60.504  1.000 19.95
ANISOU  272  OH  TYR  33    3412     2154     2015    -60   278 4 00
ATOM    273  C   TYR  33   19.357   25.253   53.452  1.000 10.92
ANISOU  273  C   TYR  33    1249     1448     1453   -125  -271 149
ATOM    274  O   TYR  33   20.514   25.192   53.006  1.000 11.50
ANISOU  274  O   TYR  33    1204     1375     1791    -98  -270 2 81
ATOM    275  N   LEU  34   18.399   26.049   53.000  1.000 11.28
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ANISOU 275   N   LEU  34    1159    1265    1862    -210  -149  121
ATOM   276   CA  LEU  34   18.577  26.942  51.864  1.000 12.99
ANISOU 276   CA  LEU  34    1565    1444    1926      81  -478  27 4
ATOM   277   CB  LEU  34   17.757  26.420  50.682  1.000 13.96
ANISOU 277   CB  LEU  34    2007    1301    1995    -430  -459 32 1
ATOM   278   CG  LEU  34   17.990  27.112  49.334  1.000 13.81
ANISOU 278   CG  LEU  34    2085    1322    1839    -331  -365 19 8
ATOM   279   CD1 LEU  34   19.308  26.691  48.704  1.000 15.94
ANISOU 279   CD1 LEU  34    2123    1793    2140     -10  -313 60 7
ATOM   280   CD2 LEU  34   16.818  26.799  48.411  1.000 16.36
ANISOU 280   CD2 LEU  34    2186    1837    2193     122  -721 13 4
ATOM   281   C   LEU  34   18.195  28.361  52.241  1.000 13.03
ANISOU 281   C   LEU  34    1676    1418    1857      31  -643   21 8
ATOM   282   O   LEU  34   17.055  28.647  52.595  1.000 13.99
ANISOU 282   O   LEU  34    1690    1281    2344     140  -714 8 5
ATOM   283   N   THR  35   19.148  29.283  52.175  1.000 15.03
ANISOU 283   N   THR  35    1837    1584    2288    -118  -625 - 3
ATOM   284   CA  THR  35   18.918  30.704  52.369  1.000 14.80
ANISOU 284   CA  THR  35    1866    1560    2196    -169  -175 -14 4
ATOM   285   CB  THR  35   20.013  31.366  53.232  1.000 15.65
ANISOU 285   CB  THR  35    2025    1719    2202    -149  -204 -28 1
ATOM   286   OG1 THR  35   21.276  31.115  52.601  1.000 18.81
ANISOU 286   OG1 THR  35    1885    2679    2583    -279  -229 -72 8
ATOM   287   CG2 THR  35   20.138  30.811  54.622  1.000 18.84
ANISOU 287   CG2 THR  35    2523    2207    2427    -850  -510 15 5
ATOM   288   C   THR  35   18.915  31.456  51.043  1.000 15.07
ANISOU 288   C   THR  35    1904    1473    2348     -57  -283 - 7 0
ATOM   289   O   THR  35   19.209  30.909  49.973  1.000 15.00
ANISOU 289   O   THR  35    2034    1520    2145    -215  -372 8 9
ATOM   290   N   ASP  36   18.564  32.739  51.086  1.000 17.46
ANISOU 290   N   ASP  36    2302    1366    2968    -209  -766 -12 0
ATOM   291   CA  ASP  36   18.618  33.606  49.924  1.000 17.91
ANISOU 291   CA  ASP  36    2150    1592    3063     112  -660 8 6
ATOM   292   CB  ASP  36   20.063  33.845  49.471  1.000 17.91
ANISOU 292   CB  ASP  36    2153    1584    3067      84  -587  - 4 2
ATOM   293   CG  ASP  36   20.948  34.545  50.469  1.000 19.23
ANISOU 293   CG  ASP  36    2575    2160    2571    -642  -324 18 1
ATOM   294   OD1 ASP  36   20.426  35.304  51.325  1.000 24.17
ANISOU 294   OD1 ASP  36    2843    3055    3284     152  -1013 - 6 52
ATOM   295   OD2 ASP  36   22.199  34.355  50.412  1.000 21.00
ANISOU 295   OD2 ASP  36    2637    2571    2772    -382  -834 -39 3
ATOM   296   C   ASP  36   17.783  33.038  48.784  1.000 18.20
ANISOU 296   C   ASP  36    2402    1736    2779    -446  -390 19 1
ATOM   297   O   ASP  36   18.222  33.063  47.629  1.000 18.98
ANISOU 297   O   ASP  36    2127    2022    3062    -464   -60  -25 2
ATOM   298   N   CYS  37   16.593  32.547  49.077  1.000 17.22
ANISOU 298   N   CYS  37    1873    2190    2479      63  -350  - 1
ATOM   299   CA  CYS  37   15.730  31.945  48.043  1.000 15.98
ANISOU 299   CA  CYS  37    1997    1590    2485     -81   -65  -18 4
ATOM   300   CB  CYS  37   15.621  30.423  48.252  1.000 18.87
ANISOU 300   CB  CYS  37    2112    1790    3268    -114  -405 57 0
ATOM   301   SG  CYS  37   14.753  29.917  49.759  1.000 19.42
ANISOU 301   SG  CYS  37    2532    1683    3164     -74  -230 32 2
ATOM   302   C   CYS  37   14.349  32.580  47.958  1.000 16.12
ANISOU 302   C   CYS  37    1992    1669    2465    -175  -504 1 6
ATOM   303   O   CYS  37   13.483  32.032  47.253  1.000 20.60
ANISOU 303   O   CYS  37    2761    1769    3296    -241  -1333 5 1
ATOM   304   N   GLY  38   14.125  33.714  48.617  1.000 17.89
ANISOU 304   N   GLY  38    1847    1572    3381     209  -898 -11 1
ATOM   305   CA  GLY  38   12.850  34.404  48.587  1.000 18.16
ANISOU 305   CA  GLY  38    1608    2126    3164     141  -999 - 6
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ATOM     306  C   GLY 38    11.843  33.864  49.589  1.000 21.98
ANISOU   306  C   GLY 38     2598    2574    3180     262   -97  -455
ATOM     307  O   GLY 38    10.677  34.273  49.499  1.000 22.75
ANISOU   307  O   GLY 38     2542    3027    3073     241    79   -97
ATOM     308  N   LEU 39    12.241  32.982  50.501  1.000 21.93
ANISOU   308  N   LEU 39     2112    3318    2903     -65  -102  -154
ATOM     309  CA  LEU 39    11.443  32.357  51.545  1.000 26.16
ANISOU   309  CA  LEU 39     3141    3610    3188   -1071   162  -400
ATOM     310  CB  LEU 39    11.220  30.868  51.277  1.000 28.13
ANISOU   310  CB  LEU 39     2980    3192    4516    -352  -848  258
ATOM     311  CG  LEU 39    10.296  30.434  50.157  1.000 27.39
ANISOU   311  CG  LEU 39     3352    2591    4463     541  -637 -1052
ATOM     312  CD1 LEU 39    10.472  28.940  49.910  1.000 28.66
ANISOU   312  CD1 LEU 39     3375    2293    5221     581  -150  -190
ATOM     313  CD2 LEU 39     8.838  30.768  50.478  1.000 30.62
ANISOU   313  CD2 LEU 39     3155    2985    5496    1275 -1485  -208
ATOM     314  C   LEU 39    12.060  32.430  52.949  1.000 26.26
ANISOU   314  C   LEU 39     2868    3969    3143    -796   170   335
ATOM     315  O   LEU 39    13.105  31.861  53.266  1.000 35.57
ANISOU   315  O   LEU 39     4990    4057    4470     804  -630  320
ATOM     316  N   THR 40    11.388  33.136  53.827  1.000 26.61
ANISOU   316  N   THR 40     3425    3883    2803    -703  -191  102
ATOM     317  CA  THR 40    11.676  33.329  55.228  1.000 22.95
ANISOU   317  CA  THR 40     1972    3864    2886       4  -608  518
ATOM     318  C   THR 40    10.380  33.424  56.031  1.000 27.03
ANISOU   318  C   THR 40     2331    4900    3040    -690  -220   -3
ATOM     319  O   THR 40     9.254  33.316  55.537  1.000 25.98
ANISOU   319  O   THR 40     2148    4860    2864    -546    36  -720
ATOM     320  CB  THR 40    12.476  34.624  55.456  1.000 27.16
ANISOU   320  CB  THR 40     2646    4799    2874    -932  -391  148
ATOM     321  OG1 THR 40    11.639  35.687  54.986  1.000 36.24
ANISOU   321  OG1 THR 40     5158    3872    4740    -472  -136  660
ATOM     322  CG2 THR 40    13.771  34.669  54.659  1.000 34.29
ANISOU   322  CG2 THR 40     5268    3289    4470   -1303  2206  429
ATOM     323  N   ASP 41    10.524  33.635  57.346  1.000 28.20
ANISOU   323  N   ASP 41     2270    5223    3223    -711  -317  -479
ATOM     324  CA  ASP 41     9.324  33.604  58.191  1.000 25.10
ANISOU   324  CA  ASP 41     1935    4633    2968      13  -551  -505
ATOM     325  C   ASP 41     8.418  34.785  57.896  1.000 24.69
ANISOU   325  C   ASP 41     2686    3839    2855    -446  -749  -241
ATOM     326  O   ASP 41     7.219  34.846  58.163  1.000 24.79
ANISOU   326  O   ASP 41     2757    2721    3941     174  -584  -141
ATOM     327  CB  ASP 41     9.728  33.549  59.678  1.000 28.21
ANISOU   327  CB  ASP 41     2221    5503    2995     892  -594  -555
ATOM     328  CG  ASP 41     9.892  32.129  60.180  1.000 42.46
ANISOU   328  CG  ASP 41     6437    5911    3784   -1196 -1257  826
ATOM     329  OD1 ASP 41     9.705  31.161  59.401  1.000 55.96
ANISOU   329  OD1 ASP 41    12184    5138    3940   -2654   -82  1249
ATOM     330  OD2 ASP 41    10.214  31.951  61.383  1.000 61.55
ANISOU   330  OD2 ASP 41    10370    7470    5548   -4396 -4720  2309
ATOM     331  N   THR 42     8.991  35.807  57.305  1.000 29.30
ANISOU   331  N   THR 42     3761    4531    2839   -1404 -1089   -72
ATOM     332  CA  THR 42     8.255  36.976  56.863  1.000 33.69
ANISOU   332  CA  THR 42     4852    3472    4475   -1524  -819  -127
ATOM     333  C   THR 42     7.199  36.598  55.834  1.000 29.14
ANISOU   333  C   THR 42     3354    3051    4667     204  -648  -277
ATOM     334  O   THR 42     6.026  36.969  55.844  1.000 36.90
ANISOU   334  O   THR 42     3578    2980    7462     603  -176  643
ATOM     335  CB  THR 42     9.282  37.967  56.281  1.000 40.80
ANISOU   335  CB  THR 42     5831    4318    5354   -2254  -450   37
ATOM     336  OG1 THR 42    10.288  38.317  57.263  1.000 46.30
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ANISOU 336    OG1 THR  42   6998    3682    6912   -3163 -1478  177
ATOM   337    CG2 THR  42   8.582  39.253  55.872  1.000 45.59
ANISOU 337    CG2 THR  42   9083    3877    4363   -2166 -1048  238
ATOM   338    N   GLU  43   7.573  35.773  54.862  1.000 31.74
ANISOU 338    N   GLU  43   3380    4360    4319    -673  -223 -782
ATOM   339    CA  GLU  43   6.647  35.355  53.810  1.000 35.40
ANISOU 339    CA  GLU  43   4856    4683    3913   -1510  -650  329
ATOM   340    C   GLU  43   5.643  34.324  54.330  1.000 28.03
ANISOU 340    C   GLU  43   2988    3297    4363     -41  -919  168
ATOM   341    O   GLU  43   4.560  34.138  53.764  1.000 38.18
ANISOU 341    O   GLU  43   3818    2970    7717     -66 -2774 1469
ATOM   342    CB  GLU  43   7.423  34.811  52.608  1.000 38.89
ANISOU 342    CB  GLU  43   4464    6532    3779   -2546  -860 -393
ATOM   343    CG  GLU  43   8.462  35.745  52.010  1.000 45.47
ANISOU 343    CG  GLU  43   5175    7105    5377   -2936   -92 -289
ATOM   344    CD  GLU  43   9.750  35.764  52.826  1.000 46.40
ANISOU 344    CD  GLU  43   4506    7977    5145   -3155  548 -1210
ATOM   345    OE1 GLU  43   9.775  36.447  53.880  1.000 55.20
ANISOU 345    OE1 GLU  43   8741    7607    4627   -2062 -1002 -669
ATOM   346    OE2 GLU  43  10.706  35.080  52.433  1.000 56.77
ANISOU 346    OE2 GLU  43   4592    8930    8050   -2652  939 -1258
ATOM   347    N   LEU  44   5.980  33.645  55.426  1.000 22.72
ANISOU 347    N   LEU  44   2508    2161    3964     464  -476 -450
ATOM   348    CA  LEU  44   5.117  32.592  55.959  1.000 26.76
ANISOU 348    CA  LEU  44   4009    1973    4187     140   570 -986
ATOM   349    CB  LEU  44   5.978  31.585  56.727  1.000 28.25
ANISOU 349    CB  LEU  44   5094    2194    3448    -153   277 -562
ATOM   350    CG  LEU  44   5.284  30.494  57.533  1.000 32.03
ANISOU 350    CG  LEU  44   5971    2801    3398    -279  1192 -627
ATOM   351    CD1 LEU  44   4.485  29.535  56.656  1.000 37.95
ANISOU 351    CD1 LEU  44   7665    2239    4514   -1148  2039 -1403
ATOM   352    CD2 LEU  44   6.302  29.703  58.361  1.000 36.97
ANISOU 352    CD2 LEU  44   7096    2869    4080    1150  2171  186
ATOM   353    C   LEU  44   4.000  33.145  56.841  1.000 31.10
ANISOU 353    C   LEU  44   3835    3182    4800    -700   837 -2205
ATOM   354    O   LEU  44   2.913  32.543  56.867  1.000 30.19
ANISOU 354    O   LEU  44   4402    3299    3768   -1248  870 -2165
ATOM   355    N   ALA  45   4.238  34.247  57.547  1.000 28.74
ANISOU 355    N   ALA  45   2897    2938    5083    -562   710 -2061
ATOM   356    CA  ALA  45   3.382  34.751  58.623  1.000 27.09
ANISOU 356    CA  ALA  45   2716    2817    4761    -751   467 -2140
ATOM   357    C   ALA  45   1.943  35.014  58.195  1.000 24.95
ANISOU 357    C   ALA  45   2697    3110    3673    -784   709 -1257
ATOM   358    O   ALA  45   1.021  34.515  58.875  1.000 22.50
ANISOU 358    O   ALA  45   2762    2585    3201    -565   560 -1146
ATOM   359    CB  ALA  45   3.975  36.005  59.248  1.000 36.30
ANISOU 359    CB  ALA  45   3259    4219    6315   -1912  1332 -3404
ATOM   360    N   SER  46   1.729  35.779  57.128  1.000 26.85
ANISOU 360    N   SER  46   3258    3756    3187   -1732  618 -1184
ATOM   361    CA  SER  46   0.380  36.052  56.642  1.000 24.97
ANISOU 361    CA  SER  46   3686    3189    2611   -1223  511 -1105
ATOM   362    CB  SER  46   0.422  36.950  55.392  1.000 32.35
ANISOU 362    CB  SER  46   5428    3467    3395   -2233   70 -458
ATOM   363    OG  SER  46   0.630  38.289  55.772  1.000 45.77
ANISOU 363    OG  SER  46   7730    3349    6313   -2746 2499 -807
ATOM   364    C   SER  46  -0.408  34.787  56.307  1.000 20.63
ANISOU 364    C   SER  46   2797    2469    2572    -423  -151 -542
ATOM   365    O   SER  46  -1.578  34.672  56.698  1.000 21.93
ANISOU 365    O   SER  46   3120    2486    2725    -559   305 -403
ATOM   366    N   ALA  47   0.211  33.855  55.590  1.000 22.39
ANISOU 366    N   ALA  47   3096    2167    3244    -488   394 -368
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ATOM    367  CA  ALA  47  -0.397  32.596  55.176  1.000 19.54
ANISOU  367  CA  ALA  47   2746    1863    2814    -289  362  - 18
ATOM    368  CB  ALA  47   0.548  31.900  54.191  1.000 23.54
ANISOU  368  CB  ALA  47   3524    1717    3705    -617 1237 -159
ATOM    369  C   ALA  47  -0.715  31.714  56.381  1.000 19.95
ANISOU  369  C   ALA  47   2282    2546    2752    -327   19 257
ATOM    370  O   ALA  47  -1.836  31.199  56.518  1.000 19.66
ANISOU  370  O   ALA  47   2489    2589    2393    -614  211  -165
ATOM    371  N   LYS  48   0.270  31.558  57.268  1.000 18.24
ANISOU  371  N   LYS  48   2713    1966    2253    -210 -139 -912
ATOM    372  CA  LYS  48   0.042  30.782  58.486  1.000 19.33
ANISOU  372  CA  LYS  48   2398    2625    2321     43 -312  -563
ATOM    373  C   LYS  48  -1.110  31.329  59.322  1.000 20.57
ANISOU  373  C   LYS  48   2476    2556    2785    -326   83 -566
ATOM    374  O   LYS  48  -2.022  30.613  59.771  1.000 20.34
ANISOU  374  O   LYS  48   3207    2598    1923    -521  139  -340
ATOM    375  CB  LYS  48   1.152  30.758  59.294  1.000 24.61
ANISOU  375  CB  LYS  48   2400    3792    3158    -258 -556 - 80
ATOM    376  CG  LYS  48   1.237  29.873  60.531  1.000 30.84
ANISOU  376  CG  LYS  48   4306    4044    3366    -291 -1504 277
ATOM    377  CD  LYS  48   1.837  30.575  61.736  1.000 41.45
ANISOU  377  CD  LYS  48   6742    5755    3251   -1067 -1382 -356
ATOM    378  CE  LYS  48   1.625  29.717  62.966  1.000 41.63
ANISOU  378  CE  LYS  48   6620    6124    3073    -466 -1047 -353
ATOM    379  NZ  LYS  48   1.074  30.497  64.112  1.000 42.62
ANISOU  379  NZ  LYS  48   5883    6866    3444    460 -1193 -425
ATOM    380  N   ASP  49  -1.110  32.625  59.607  1.000 19.18
ANISOU  380  N   ASP  49   2348    2602    2337    -464  100  -806
ATOM    381  CA  ASP  49  -2.127  33.243  60.433  1.000 21.95
ANISOU  381  CA  ASP  49   2555    2986    2801    -791  617 -1035
ATOM    382  CB  ASP  49  -1.868  34.756  60.611  1.000 23.97
ANISOU  382  CB  ASP  49   2827    2872    3409    -250  -79 -1325
ATOM    383  CG  ASP  49  -0.681  35.078  61.492  1.000 25.41
ANISOU  383  CG  ASP  49   2787    3405    3464    -365  113 -1866
ATOM    384  OD1 ASP  49  -0.153  34.153  62.143  1.000 30.75
ANISOU  384  OD1 ASP  49   3572    4181    3932    -254 -967 -1667
ATOM    385  OD2 ASP  49  -0.235  36.256  61.563  1.000 30.78
ANISOU  385  OD2 ASP  49   3303    3649    4742    -710  344 -2413
ATOM    386  C   ASP  49  -3.543  33.061  59.904  1.000 21.44
ANISOU  386  C   ASP  49   2465    2651    3030    -388  540  -900
ATOM    387  O   ASP  49  -4.476  32.770  60.654  1.000 20.72
ANISOU  387  O   ASP  49   2346    2181    3347    -279  550  -726
ATOM    388  N   LEU  50  -3.731  33.269  58.596  1.000 23.28
ANISOU  388  N   LEU  50   2942    2712    3191   -1251  216  -644
ATOM    389  CA  LEU  50  -5.086  33.185  58.068  1.000 22.94
ANISOU  389  CA  LEU  50   3104    1796    3815    -575 -205 -1079
ATOM    390  CB  LEU  50  -5.204  33.861  56.696  1.000 28.78
ANISOU  390  CB  LEU  50   3948    2453    4535    -852 -755 -254
ATOM    391  CG  LEU  50  -6.620  34.246  56.260  1.000 25.30
ANISOU  391  CG  LEU  50   3800    2294    3520     30  325  -531
ATOM    392  CD1 LEU  50  -7.552  34.478  57.441  1.000 44.77
ANISOU  392  CD1 LEU  50   6382    4432    6196    -475 3026 -1060
ATOM    393  CD2 LEU  50  -6.625  35.485  55.385  1.000 32.52
ANISOU  393  CD2 LEU  50   5861    1962    4533    752  354  -433
ATOM    394  C   LEU  50  -5.566  31.737  57.982  1.000 21.12
ANISOU  394  C   LEU  50   2559    1870    3595    -643  742 -1270
ATOM    395  O   LEU  50  -6.772  31.494  58.175  1.000 21.13
ANISOU  395  O   LEU  50   2491    2457    3083    -543  579 -1097
ATOM    396  N   VAL  51  -4.681  30.769  57.715  1.000 16.27
ANISOU  396  N   VAL  51   2517    1843    1823    -302   -3  -646
ATOM    397  CA  VAL  51  -5.186  29.370  57.701  1.000 18.07
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ANISOU 397   CA   VAL   51   3154       1763      1947      -401  -15   - 427
ATOM   398   CB   VAL   51   -4.281     28.415    56.889    1.000 16.07
ANISOU 398   CB   VAL   51   2981       1629      1496      -621  -255 - 501
ATOM   399   CG1  VAL   51   -3.002     28.114    57.668    1.000 18.99
ANISOU 399   CG1  VAL   51   2959       2382      1875      -383  -100 302
ATOM   400   CG2  VAL   51   -5.006     27.119    56.497    1.000 22.16
ANISOU 400   CG2  VAL   51   4569       2121      1728      -1393 64   - 869
ATOM   401   C    VAL   51   -5.446     28.899    59.114    1.000 17.74
ANISOU 401   C    VAL   51   2508       2223      2009      -435  142  - 445
ATOM   402   O    VAL   51   -6.430     28.187    59.346    1.000 19.76
ANISOU 402   O    VAL   51   3005       2160      2345      -692  726  - 1021
ATOM   403   N    ILE   52   -4.671     29.263    60.125    1.000 20.23
ANISOU 403   N    ILE   52   2980       2945      1760      -649  364  - 902
ATOM   404   CA   ILE   52   -4.990     28.875    61.507    1.000 20.17
ANISOU 404   CA   ILE   52   3200       2665      1800      -758  627  - 1134
ATOM   405   CB   ILE   52   -3.847     29.230    62.469    1.000 21.31
ANISOU 405   CB   ILE   52   3294       3151      1652      -449  462  - 1043
ATOM   406   CG2  ILE   52   -4.238     29.178    63.931    1.000 21.29
ANISOU 406   CG2  ILE   52   3543       2826      1719      -362  529  - 689
ATOM   407   CG1  ILE   52   -2.619     28.346    62.217    1.000 25.37
ANISOU 407   CG1  ILE   52   3213       3819      2608      -307  727  - 1090
ATOM   408   CD1  ILE   52   -2.871     26.872    62.470    1.000 28.56
ANISOU 408   CD1  ILE   52   3474       3578      3798      106   178  - 1110
ATOM   409   C    ILE   52   -6.284     29.514    61.950    1.000 22.44
ANISOU 409   C    ILE   52   3119       3216      2190      -710  645  - 1228
ATOM   410   O    ILE   52   -7.072     28.856    62.647    1.000 23.23
ANISOU 410   O    ILE   52   3390       3654      1781      -766  758  - 1246
ATOM   411   N    ASP   53   -6.519     30.754    61.530    1.000 23.33
ANISOU 411   N    ASP   53   2897       3064      2903      -626  700  - 1361
ATOM   412   CA   ASP   53   -7.826     31.335    61.897    1.000 24.49
ANISOU 412   CA   ASP   53   2818       3347      3141      -759  781  - 1545
ATOM   413   CB   ASP   53   -7.942     32.781    61.411    1.000 27.43
ANISOU 413   CB   ASP   53   2854       3335      4235      -434  819  - 1446
ATOM   414   CG   ASP   53   -9.309     33.397    61.570    1.000 30.99
ANISOU 414   CG   ASP   53   3166       4281      4326      36 1242   - 1214
ATOM   415   OD1  ASP   53   -9.657     33.779    62.705    1.000 37.26
ANISOU 415   OD1  ASP   53   4369       4569      5220      153   1263 - 2733
ATOM   416   OD2  ASP   53   -10.050    33.491    60.553    1.000 38.45
ANISOU 416   OD2  ASP   53   3393       6043      5173      810   557  - 1648
ATOM   417   C    ASP   53   -8.953     30.495    61.316    1.000 24.64
ANISOU 417   C    ASP   53   3028       3701      2634      -919  372  - 1031
ATOM   418   O    ASP   53   -10.011    30.327    61.915    1.000 28.52
ANISOU 418   O    ASP   53   3399       3835      3603      -1519 962  - 2151
ATOM   419   N    PHE   54   -8.744     29.978    60.108    1.000 22.04
ANISOU 419   N    PHE   54   2921       2974      2479      -573  174  - 704
ATOM   420   CA   PHE   54   -9.772     29.187    59.432    1.000 19.99
ANISOU 420   CA   PHE   54   2253       2879      2463      -421  771  - 978
ATOM   421   CB   PHE   54   -9.423     29.030    57.942    1.000 18.45
ANISOU 421   CB   PHE   54   2856       1983      2171      -65   426  - 518
ATOM   422   CG   PHE   54   -10.493    28.292    57.145    1.000 21.36
ANISOU 422   CG   PHE   54   3063       2735      2318      -646  599  - 627
ATOM   423   CD1  PHE   54   -11.714    28.906    56.933    1.000 23.18
ANISOU 423   CD1  PHE   54   3199       2783      2826      -703  -29  - 624
ATOM   424   CD2  PHE   54   -10.293    27.035    56.619    1.000 23.32
ANISOU 424   CD2  PHE   54   3482       2802      2577      -689  212  - 858
ATOM   425   CE1  PHE   54   -12.719    28.291    56.241    1.000 26.45
ANISOU 425   CE1  PHE   54   3345       3696      3008      -1418 129  - 554
ATOM   426   CE2  PHE   54   -11.303    26.375    55.921    1.000 25.65
ANISOU 426   CE2  PHE   54   3750       3815      2182      -1404 607  - 1005
ATOM   427   CZ   PHE   54   -12.522    27.013    55.725    1.000 26.17
ANISOU 427   CZ   PHE   54   3433       3830      2679      -1829 298  - 813
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ATOM    428  C    PHE  54   -9.959  27.854  60.132  1.000 19.44
ANISOU  428  C    PHE  54   2340    3430    1617    -834  319  -759
ATOM    429  O    PHE  54  -11.087  27.450  60.386  1.000 22.11
ANISOU  429  O    PHE  54   2601    3066    2734    -948 1016 -1466
ATOM    430  N    PHE  55   -8.882  27.166  60.448  1.000 20.59
ANISOU  430  N    PHE  55   2728    3375    1720    -666  180  -611
ATOM    431  CA   PHE  55   -8.966  25.927  61.212  1.000 22.59
ANISOU  431  CA   PHE  55   3092    3671    1820    -728  381  -372
ATOM    432  CB   PHE  55   -7.579  25.360  61.478  1.000 21.93
ANISOU  432  CB   PHE  55   3163    3622    1549    -692  287  -158
ATOM    433  CG   PHE  55   -6.790  24.833  60.284  1.000 20.60
ANISOU  433  CG   PHE  55   3034    2998    1793   -1004  365  -375
ATOM    434  CD1  PHE  55   -7.352  24.526  59.057  1.000 18.72
ANISOU  434  CD1  PHE  55   2300    3095    1717   -1078  586  -271
ATOM    435  CD2  PHE  55   -5.430  24.615  60.385  1.000 18.06
ANISOU  435  CD2  PHE  55   3132    2490    1241    -926  128  -497
ATOM    436  CE1  PHE  55   -6.609  24.037  58.014  1.000 18.92
ANISOU  436  CE1  PHE  55   2455    2761    1971    -844  436  -542
ATOM    437  CE2  PHE  55   -4.672  24.124  59.352  1.000 18.58
ANISOU  437  CE2  PHE  55   3291    2606    1163    -478   63  -299
ATOM    438  CZ   PHE  55   -5.256  23.814  58.134  1.000 17.68
ANISOU  438  CZ   PHE  55   2660    2567    1490    -380  129  -806
ATOM    439  C    PHE  55   -9.684  26.111  62.546  1.000 24.99
ANISOU  439  C    PHE  55   3310    4138    2046    -830  647  -415
ATOM    440  O    PHE  55  -10.532  25.281  62.872  1.000 30.29
ANISOU  440  O    PHE  55   3802    4943    2763   -1527 1314 -1102
ATOM    441  N    GLU  56   -9.330  27.144  63.311  1.000 23.65
ANISOU  441  N    GLU  56   2864    4109    2013    -634  937  -525
ATOM    442  CA   GLU  56   -9.868  27.355  64.636  1.000 30.01
ANISOU  442  CA   GLU  56   3632    5378    2394   -1050 1465  -994
ATOM    443  CB   GLU  56   -8.998  28.333  65.436  1.000 36.40
ANISOU  443  CB   GLU  56   4531    6933    2367   -1606 1318 -1623
ATOM    444  CG   GLU  56   -7.666  27.827  65.916  1.000 41.89
ANISOU  444  CG   GLU  56   5006    8196    2713   -1457  404 -1900
ATOM    445  CD   GLU  56   -6.787  28.880  66.575  1.000 48.94
ANISOU  445  CD   GLU  56   6081    9310    3202   -2278  -73 -2062
ATOM    446  OE1  GLU  56   -5.694  28.515  67.078  1.000 60.73
ANISOU  446  OE1  GLU  56   8034   12274    2769   -3208 -2335  266
ATOM    447  OE2  GLU  56   -7.145  30.084  66.614  1.000 58.51
ANISOU  447  OE2  GLU  56   8742    9338    4151   -2088 1096 -3951
ATOM    448  C    GLU  56  -11.289  27.920  64.617  1.000 30.60
ANISOU  448  C    GLU  56   3764    4923    2941    -977 1967 -1271
ATOM    449  O    GLU  56  -12.058  27.542  65.504  1.000 35.21
ANISOU  449  O    GLU  56   4384    5304    3690   -1136 2652 -1235
ATOM    450  N    HIS  57  -11.603  28.805  63.673  1.000 30.00
ANISOU  450  N    HIS  57   3730    4846    2823    -654 1684 -1582
ATOM    451  CA   HIS  57  -12.854  29.559  63.759  1.000 33.51
ANISOU  451  CA   HIS  57   3853    5101    3778    -519 1673 -1911
ATOM    452  CB   HIS  57  -12.536  31.046  63.991  1.000 33.40
ANISOU  452  CB   HIS  57   3844    5183    3664    -411 1546 -2250
ATOM    453  CG   HIS  57  -11.577  31.344  65.095  1.000 35.13
ANISOU  453  CG   HIS  57   4497    5409    3444    -505 1340 -1992
ATOM    454  CD2  HIS  57  -10.361  31.946  65.071  1.000 35.26
ANISOU  454  CD2  HIS  57   4837    5214    3345    -834  637 -1456
ATOM    455  ND1  HIS  57  -11.819  31.021  66.411  1.000 40.52
ANISOU  455  ND1  HIS  57   6021    5885    3490   -1360 1474 -2002
ATOM    456  CE1  HIS  57  -10.798  31.410  67.151  1.000 42.28
ANISOU  456  CE1  HIS  57   6680    6066    3320   -1632 1099 -1772
ATOM    457  NE2  HIS  57   -9.902  31.970  66.362  1.000 41.69
ANISOU  457  NE2  HIS  57   6377    6133    3329   -1817  407 -1148
ATOM    458  C    HIS  57  -13.769  29.466  62.547  1.000 32.58
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ANISOU 458    C    HIS   57   3083          5097     4199    -729  1723 -2066
ATOM   459    O    HIS   57  -14.902 29.965  62.578  1.000 33.80
ANISOU 459    O    HIS   57   3121          5097     4625    -731  1865 -2565
ATOM   460    N    GLY   58  -13.370 28.866  61.432  1.000 28.78
ANISOU 460    N    GLY   58   2841          4353     3742    -253  1341 -1506
ATOM   461    CA   GLY   58  -14.326 28.685  60.332  1.000 26.99
ANISOU 461    CA   GLY   58   2471          3916     3869     24  1298  -1173
ATOM   462    C    GLY   58  -15.447 27.737  60.738  1.000 29.94
ANISOU 462    C    GLY   58   2665          4357     4353    -261  1323 -1058
ATOM   463    O    GLY   58  -15.241 26.805  61.534  1.000 29.23
ANISOU 463    O    GLY   58   2976          4044     4087    -571  1192 -1297
ATOM   464    N    SER   59  -16.635 27.958  60.193  1.000 27.61
ANISOU 464    N    SER   59   2556          3905     4029    -108  1461 -1767
ATOM   465    CA   SER   59  -17.812 27.153  60.497  1.000 28.42
ANISOU 465    CA   SER   59   2675          4074     4049    -189  1294 -1325
ATOM   466    CB   SER   59  -19.121 27.889  60.162  1.000 28.29
ANISOU 466    CB   SER   59   2556          4574     3618    -339  1198  -928
ATOM   467    OG   SER   59  -19.229 27.978  58.739  1.000 28.66
ANISOU 467    OG   SER   59   3598          3742     3547     166  1729  -867
ATOM   468    C    SER   59  -17.795 25.843  59.724  1.000 29.57
ANISOU 468    C    SER   59   3467          3990     3779    -646  1463 -1206
ATOM   469    O    SER   59  -16.990 25.651  58.810  1.000 22.72
ANISOU 469    O    SER   59   3054          3042     2537    -144   648  -369
ATOM   470    N    GLU   60  -18.698 24.939  60.103  1.000 26.90
ANISOU 470    N    GLU   60   2413          3900     3907    -69  1079  -853
ATOM   471    CA   GLU   60  -18.699 23.684  59.359  1.000 26.98
ANISOU 471    CA   GLU   60   2699          3515     4037    -98   709  -537
ATOM   472    CB   GLU   60  -19.646 22.681  60.001  1.000 39.11
ANISOU 472    CB   GLU   60   5393          4393     5075   -1361   908   364
ATOM   473    CG   GLU   60  -19.011 21.665  60.917  1.000 44.63
ANISOU 473    CG   GLU   60   5606          5473     5878    -977  1079  1219
ATOM   474    CD   GLU   60  -17.507 21.543  60.797  1.000 48.52
ANISOU 474    CD   GLU   60   5714          6217     6503    -390  1207   877
ATOM   475    OE1  GLU   60  -17.030 21.223  59.684  1.000 48.11
ANISOU 475    OE1  GLU   60   5349          7545     5384     709   366  1951
ATOM   476    OE2  GLU   60  -16.828 21.763  61.829  1.000 46.50
ANISOU 476    OE2  GLU   60   4926          5742     7000    1158  1550 -1504
ATOM   477    C    GLU   60  -19.091 23.960  57.915  1.000 25.30
ANISOU 477    C    GLU   60   2829          2728     4055     86   725  -656
ATOM   478    O    GLU   60  -18.529 23.346  57.027  1.000 24.18
ANISOU 478    O    GLU   60   2119          2980     4091    -202   741  -752
ATOM   479    N    ALA   61  -20.032 24.890  57.716  1.000 25.58
ANISOU 479    N    ALA   61   2083          3206     4432    -34   612  -774
ATOM   480    CA   ALA   61  -20.495 25.212  56.368  1.000 24.05
ANISOU 480    CA   ALA   61   1838          2999     4301    228   720 -1055
ATOM   481    CB   ALA   61  -21.670 26.176  56.459  1.000 27.53
ANISOU 481    CB   ALA   61   2807          1857     5797    394   704  -606
ATOM   482    C    ALA   61  -19.385 25.790  55.500  1.000 27.31
ANISOU 482    C    ALA   61   3170          2572     4633    -377  1178 -1026
ATOM   483    O    ALA   61  -19.247 25.467  54.311  1.000 22.29
ANISOU 483    O    ALA   61   2363          1876     4232     42   661  -319
ATOM   484    N    GLU   62  -18.580 26.642  56.118  1.000 22.18
ANISOU 484    N    GLU   62   2075          2258     4094    396   569  -394
ATOM   485    CA   GLU   62  -17.455 27.258  55.416  1.000 24.19
ANISOU 485    CA   GLU   62   2401          2603     4188    150   852  -590
ATOM   486    CB   GLU   62  -16.806 28.354  56.277  1.000 24.68
ANISOU 486    CB   GLU   62   2401          2490     4485     91  1273  -828
ATOM   487    CG   GLU   62  -17.641 29.636  56.356  1.000 25.19
ANISOU 487    CG   GLU   62   2542          2620     4409    353   421  -685
ATOM   488    CD   GLU   62  -17.288 30.581  57.480  1.000 29.27
ANISOU 488    CD   GLU   62   3284          2991     4845    621   515 -1290
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ATOM      489   OE1 GLU   62    -16.527 30.241 58.410 1.000 30.11
ANISOU    489   OE1 GLU   62   3231       3067       5143     318    56 -1639
ATOM      490   OE2 GLU   62    -17.796 31.739 57.436 1.000 35.30
ANISOU    490   OE2 GLU   62   4832       2994       5584     863   109 -1327
ATOM      491   C   GLU   62    -16.409 26.226 55.025 1.000 21.70
ANISOU    491   C   GLU   62   2394       2421       3430      30   784 -579
ATOM      492   O   GLU   62    -15.818 26.218 53.940 1.000 19.44
ANISOU    492   O   GLU   62   2095       2140       3153    -301   467 -604
ATOM      493   N   LYS   63    -16.184 25.308 55.972 1.000 20.08
ANISOU    493   N   LYS   63   2472       2266       2893     -74   761 -902
ATOM      494   CA  LYS   63    -15.246 24.227 55.678 1.000 19.73
ANISOU    494   CA  LYS   63   2322       2559       2614     133   429 -903
ATOM      495   CB  LYS   63    -14.934 23.497 56.988 1.000 18.48
ANISOU    495   CB  LYS   63   1803       2743       2476    -218   587 -836
ATOM      496   CG  LYS   63    -13.946 24.240 57.881 1.000 19.17
ANISOU    496   CG  LYS   63   2115       2332       2836    -296   325 -574
ATOM      497   CD  LYS   63    -13.839 23.651 59.290 1.000 26.23
ANISOU    497   CD  LYS   63   2978       4084       2902    -888  -177 -287
ATOM      498   CE  LYS   63    -12.753 24.383 60.068 1.000 27.75
ANISOU    498   CE  LYS   63   3074       5008       2461   -1239   500 -1082
ATOM      499   NZ  LYS   63    -12.929 24.378 61.530 1.000 34.95
ANISOU    499   NZ  LYS   63   3177       7579       2524   -2594   840 -894
ATOM      500   C   LYS   63    -15.789 23.304 54.586 1.000 17.52
ANISOU    500   C   LYS   63   2014       2191       2453      51   529 -691
ATOM      501   O   LYS   63    -15.025 22.953 53.654 1.000 17.58
ANISOU    501   O   LYS   63   2266       1709       2704     158   707 -653
ATOM      502   N   ARG   64    -17.069 22.912 54.641 1.000 19.63
ANISOU    502   N   ARG   64   2081       2452       2926     -14   614 -592
ATOM      503   CA  ARG   64    -17.618 22.041 53.595 1.000 19.00
ANISOU    503   CA  ARG   64   1509       2526       3185      -3   620 -652
ATOM      504   C   ARG   64    -17.471 22.634 52.194 1.000 20.42
ANISOU    504   C   ARG   64   2165       2436       3157    -390   -22 -536
ATOM      505   O   ARG   64    -17.204 21.934 51.195 1.000 18.83
ANISOU    505   O   ARG   64   1854       2184       3115    -434   575 -201
ATOM      506   CB  ARG   64    -19.080 21.670 53.871 1.000 24.70
ANISOU    506   CB  ARG   64   1470       3652       4263     -51   841 -909
ATOM      507   CG  ARG   64    -19.838 20.933 52.795 1.000 36.49
ANISOU    507   CG  ARG   64   2961       5284       5621   -2020   138 -882
ATOM      508   CD  ARG   64    -21.315 20.645 53.095 1.000 46.32
ANISOU    508   CD  ARG   64   3034       6962       7603   -2438   327 -1187
ATOM      509   NE  ARG   64    -21.776 21.216 54.331 1.000 55.81
ANISOU    509   NE  ARG   64   3917       8636       8652   -3960  2222 -1870
ATOM      510   CZ  ARG   64    -22.814 21.840 54.811 1.000 58.82
ANISOU    510   CZ  ARG   64   4438       8939       8972   -3479  1988 -2480
ATOM      511   NH1 ARG   64    -23.884 22.106 54.071 1.000 76.83
ANISOU    511   NH1 ARG   64   6024       9527      13641   -1787  -165 -1872
ATOM      512   NH2 ARG   64    -22.797 22.213 56.093 1.000 69.53
ANISOU    512   NH2 ARG   64   7792       9201       9424   -5884  3891 -3304
ATOM      513   N   ALA   65    -17.621 23.947 52.066 1.000 20.43
ANISOU    513   N   ALA   65   1689       2554       3519      24   612 -525
ATOM      514   CA  ALA   65    -17.505 24.656 50.782 1.000 19.45
ANISOU    514   CA  ALA   65   1649       2216       3523     409   184 -553
ATOM      515   CB  ALA   65    -17.912 26.108 50.984 1.000 23.73
ANISOU    515   CB  ALA   65   1420       2019       5579     126  -373 -742
ATOM      516   C   ALA   65    -16.118 24.549 50.168 1.000 17.89
ANISOU    516   C   ALA   65   1524       2099       3173     -47   108 -101
ATOM      517   O   ALA   65    -15.983 24.732 48.954 1.000 18.77
ANISOU    517   O   ALA   65   1830       2178       3123     122    -8 -229
ATOM      518   N   VAL   66    -15.100 24.248 50.973 1.000 17.99
ANISOU    518   N   VAL   66   1547       2151       3137     -86    36 -196
ATOM      519   CA  VAL   66    -13.746 24.066 50.430 1.000 16.74
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ANISOU 519   CA  VAL 66   1553     1859    2948    -62   -56  -254
ATOM   520   CB  VAL 66  -12.775 25.151  50.951  1.000 17.29
ANISOU 520   CB  VAL 66   1805     1804    2963   -330   338  -185
ATOM   521   CG1 VAL 66  -13.238 26.532  50.455  1.000 16.70
ANISOU 521   CG1 VAL 66   1547     1800    2997    111   545  -553
ATOM   522   CG2 VAL 66  -12.652 25.180  52.462  1.000 18.65
ANISOU 522   CG2 VAL 66   2053     1995    3036   -193    17  -538
ATOM   523   C   VAL 66  -13.201 22.680  50.724  1.000 15.66
ANISOU 523   C   VAL 66   1775     1813    2362    -70  -250  -457
ATOM   524   O   VAL 66  -11.972 22.493  50.808  1.000 14.19
ANISOU 524   O   VAL 66   1747     1576    2069   -122   -56  -347
ATOM   525   N   THR 67  -14.071 21.695  50.873  1.000 14.46
ANISOU 525   N   THR 67   1550     1602    2343    126   -48  -722
ATOM   526   CA  THR 67  -13.723 20.279  51.000  1.000 14.06
ANISOU 526   CA  THR 67   1461     1698    2185    234     5  -740
ATOM   527   CB  THR 67  -14.419 19.647  52.225  1.000 15.08
ANISOU 527   CB  THR 67   1721     1955    2053    -51  -426  -444
ATOM   528   OG1 THR 67  -14.089 20.337  53.453  1.000 17.41
ANISOU 528   OG1 THR 67   2538     1949    2128    -39    70  -716
ATOM   529   CG2 THR 67  -13.915 18.215  52.420  1.000 16.63
ANISOU 529   CG2 THR 67   2182     1888    2248    148   293  -658
ATOM   530   C   THR 67  -14.067 19.518  49.728  1.000 12.37
ANISOU 530   C   THR 67   1144     1422    2132    209   -95  -517
ATOM   531   O   THR 67  -15.208 19.567  49.229  1.000 14.82
ANISOU 531   O   THR 67   1197     2086    2350    208  -168  -362
ATOM   532   N   SER 68  -13.092 18.790  49.180  1.000 11.61
ANISOU 532   N   SER 68   1109     1421    1881     37   -58  -534
ATOM   533   CA  SER 68  -13.306 17.955  48.003  1.000 11.45
ANISOU 533   CA  SER 68   1274     1444    1631    -49   -30  -374
ATOM   534   CB  SER 68  -12.027 17.317  47.480  1.000 11.88
ANISOU 534   CB  SER 68   1446     1523    1544     79   252  -157
ATOM   535   OG  SER 68  -11.026 18.292  47.239  1.000 16.95
ANISOU 535   OG  SER 68   1557     2314    2569   -336   389  -218
ATOM   536   C   SER 68  -14.269 16.815  48.319  1.000 11.56
ANISOU 536   C   SER 68   1287     1375    1732    -61    53  -406
ATOM   537   O   SER 68  -14.308 16.384  49.476  1.000 14.62
ANISOU 537   O   SER 68   1998     1860    1697   -538   153  -430
ATOM   538   N   PRO 69  -15.026 16.324  47.344  1.000 12.78
ANISOU 538   N   PRO 69   1476     1473    1905   -243   -88  -194
ATOM   539   CD  PRO 69  -15.130 16.801  45.953  1.000 12.47
ANISOU 539   CD  PRO 69   1022     1808    1909   -199  -203  -144
ATOM   540   CA  PRO 69  -15.941 15.214  47.639  1.000 12.21
ANISOU 540   CA  PRO 69   1358     1369    1913   -178   148  -437
ATOM   541   CB  PRO 69  -16.825 15.193  46.355  1.000 13.94
ANISOU 541   CB  PRO 69   1362     1591    2343   -251  -178   -14
ATOM   542   CG  PRO 69  -15.924 15.715  45.290  1.000 14.38
ANISOU 542   CG  PRO 69   1396     1947    2122   -554  -511  178
ATOM   543   C   PRO 69  -15.270 13.882  47.912  1.000 13.25
ANISOU 543   C   PRO 69   1206     1526    2303   -217  -115  -100
ATOM   544   O   PRO 69  -15.932 12.985  48.481  1.000 14.01
ANISOU 544   O   PRO 69   1753     1450    2122   -373    99  -301
ATOM   545   N   VAL 70  -14.015 13.692  47.554  1.000 13.46
ANISOU 545   N   VAL 70   1288     1479    2348   -174  -108  -265
ATOM   546   CA  VAL 70  -13.184 12.548  47.898  1.000 13.49
ANISOU 546   CA  VAL 70   1404     1692    2030     37   138  -195
ATOM   547   CB  VAL 70  -12.587 11.720  46.737  1.000 16.39
ANISOU 547   CB  VAL 70   2142     1648    2439   -225   614  -452
ATOM   548   CG1 VAL 70  -13.615 10.756  46.208  1.000 33.50
ANISOU 548   CG1 VAL 70   6470     2984    3274  -2702    41  -867
ATOM   549   CG2 VAL 70  -11.995 12.613  45.640  1.000 16.46
ANISOU 549   CG2 VAL 70   1749     2234    2273    269   444   23
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ATOM    550  C   VAL  70   -12.042 13.057  48.782 1.000 13.59
ANISOU  550  C   VAL  70   1618    1382    2163    -38    -114 1 2 7
ATOM    551  O   VAL  70   -11.426 14.105  48.493 1.000 14.20
ANISOU  551  O   VAL  70   1748    1685    1964    -265   26 1 8 2
ATOM    552  N   PRO  71   -11.786 12.365  49.898 1.000 14.21
ANISOU  552  N   PRO  71   1607    1507    2285    -115   -62  3 10
ATOM    553  CD  PRO  71   -12.432 11.125  50.378 1.000 14.70
ANISOU  553  CD  PRO  71   1920    1590    2076    -201   646   4
ATOM    554  CA  PRO  71   -10.830 12.919  50.878 1.000 17.41
ANISOU  554  CA  PRO  71   2429    2008    2178    -522   -342 4 18
ATOM    555  CB  PRO  71   -11.338 12.304  52.193 1.000 20.87
ANISOU  555  CB  PRO  71   3768    2082    2081    -743   190  1 4
ATOM    556  CG  PRO  71   -11.908 10.989  51.775 1.000 18.28
ANISOU  556  CG  PRO  71   3534    1665    1746    -338   781  - 5 4
ATOM    557  C   PRO  71   -9.384  12.543  50.619 1.000 17.14
ANISOU  557  C   PRO  71   2183    2304    2026    -684   -815 4 4
ATOM    558  O   PRO  71   -8.730  11.796  51.330 1.000 20.54
ANISOU  558  O   PRO  71   2745    2610    2448    -87    -404 4 14
ATOM    559  N   THR  72   -8.834  13.111  49.556 1.000 16.59
ANISOU  559  N   THR  72   2156    2046    2103    -235   -508 - 17
ATOM    560  CA  THR  72   -7.496  12.818  49.090 1.000 17.43
ANISOU  560  CA  THR  72   2113    1884    2626    -254   -510 - 2 8 8
ATOM    561  CB  THR  72   -7.477  12.829  47.545 1.000 15.98
ANISOU  561  CB  THR  72   1700    1761    2611    211    -458 - 4 2 1
ATOM    562  OG1 THR  72   -8.027  14.094  47.128 1.000 17.28
ANISOU  562  OG1 THR  72   2146    1553    2868    27 -355   - 2 71
ATOM    563  CG2 THR  72   -8.348  11.764  46.929 1.000 12.63
ANISOU  563  CG2 THR  72   1296    1581    1923    -46    328  - 1 2 7
ATOM    564  C   THR  72   -6.418  13.805  49.549 1.000 17.83
ANISOU  564  C   THR  72   2153    1773    2847    -155   -1228 2 3 2
ATOM    565  O   THR  72   -5.216  13.536  49.329 1.000 20.17
ANISOU  565  O   THR  72   2142    2265    3257    -225   -1049 4 80
ATOM    566  N   MET  73   -6.785  14.920  50.169 1.000 19.43
ANISOU  566  N   MET  73   2876    2052    2455    -782   -451 - 1 4 4
ATOM    567  CA  MET  73   -5.799  15.944  50.521 1.000 18.75
ANISOU  567  CA  MET  73   2117    2326    2682    -538   -466 - 2 8 0
ATOM    568  CB  MET  73   -4.758  15.338  51.480 1.000 22.03
ANISOU  568  CB  MET  73   1826    2825    3718    -377   -306 5 95
ATOM    569  CG  MET  73   -5.374  15.059  52.843 1.000 27.01
ANISOU  569  CG  MET  73   3545    2853    3864    -84    -87  1 5 2 6
ATOM    570  SD  MET  73   -4.107  14.850  54.107 1.000 32.23
ANISOU  570  SD  MET  73   4364    4245    3637    469    -400 5 83
ATOM    571  CE  MET  73   -3.179  13.492  53.374 1.000 26.74
ANISOU  571  CE  MET  73   2885    4895    2381    326    425  1 3 4 8
ATOM    572  C   MET  73   -5.066  16.582  49.355 1.000 17.20
ANISOU  572  C   MET  73   1338    2129    3067    -20    -269 - 1 7 5
ATOM    573  O   MET  73   -3.945  17.110  49.498 1.000 21.20
ANISOU  573  O   MET  73   1713    2512    3832    -541   51 - 1 0 2 4
ATOM    574  N   ARG  74   -5.630  16.600  48.175 1.000 18.64
ANISOU  574  N   ARG  74   1881    2051    3150    84 -461  5 4 3
ATOM    575  CA  ARG  74   -5.091  17.180  46.967 1.000 15.73
ANISOU  575  CA  ARG  74   937 1986       3053     169    27 - 1 7 4
ATOM    576  CB  ARG  74   -5.655  16.537  45.704 1.000 16.53
ANISOU  576  CB  ARG  74   1711    1434    3137    -263   142  - 1 6 0
ATOM    577  CG  ARG  74   -4.911  16.934  44.440 1.000 15.01
ANISOU  577  CG  ARG  74   1270    1288    3144    -156   279  - 5 5 4
ATOM    578  CD  ARG  74   -5.683  16.543  43.185 1.000 16.10
ANISOU  578  CD  ARG  74   1967    1031    3120    268    -92  - 4 0 7
ATOM    579  NE  ARG  74   -4.902  16.816  41.966 1.000 18.81
ANISOU  579  NE  ARG  74   2259    1813    3075    -432   -252 - 2 9 6
ATOM    580  CZ  ARG  74   -5.033  17.824  41.130 1.000 16.64
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ANISOU  580   CZ   ARG   74    1968     1646     2709     -141  -190 -596
ATOM    581   NH1  ARG   74   -5.951   18.775   41.293   1.000 20.09
ANISOU  581   NH1  ARG   74    1899     2075     3660       54  -353  -788
ATOM    582   NH2  ARG   74   -4.220   17.896   40.068   1.000 20.12
ANISOU  582   NH2  ARG   74    2366     2844     2437      153  -196 -400
ATOM    583   C    ARG   74   -5.373   18.681   46.966   1.000 12.70
ANISOU  583   C    ARG   74    1187     1880     1758        6   -22 -136
ATOM    584   O    ARG   74   -4.501   19.465   46.582   1.000 14.07
ANISOU  584   O    ARG   74    1049     2048     2247     -221  -170 -480
ATOM    585   N    ARG   75   -6.567   19.099   47.387   1.000 12.72
ANISOU  585   N    ARG   75    1402     1702     1728       95   182 -108
ATOM    586   CA   ARG   75   -7.006   20.471   47.308   1.000 13.40
ANISOU  586   CA   ARG   75    1924     1618     1548       87   275 -193
ATOM    587   CB   ARG   75   -7.737   20.784   45.995   1.000 13.45
ANISOU  587   CB   ARG   75    1972     1387     1751     -179    51   -9
ATOM    588   CG   ARG   75   -6.908   20.637   44.721   1.000 13.38
ANISOU  588   CG   ARG   75    1638     1851     1594       78  -217  101
ATOM    589   CD   ARG   75   -5.849   21.708   44.582   1.000 12.85
ANISOU  589   CD   ARG   75    1537     1602     1741      237    62  -15
ATOM    590   NE   ARG   75   -5.087   21.685   43.347   1.000 13.71
ANISOU  590   NE   ARG   75    1708     1797     1705      188    90  -91
ATOM    591   CZ   ARG   75   -3.984   21.036   43.013   1.000 12.46
ANISOU  591   CZ   ARG   75    1348     1656     1731      -89    86  117
ATOM    592   NH1  ARG   75   -3.418   20.241   43.894   1.000 14.64
ANISOU  592   NH1  ARG   75    1933     1794     1834      186   -91   65
ATOM    593   NH2  ARG   75   -3.444   21.167   41.794   1.000 13.72
ANISOU  593   NH2  ARG   75    1510     2037     1667     -136    84  -83
ATOM    594   C    ARG   75   -7.948   20.787   48.475   1.000 12.74
ANISOU  594   C    ARG   75    1400     1656     1784     -209   214  -464
ATOM    595   O    ARG   75   -8.780   19.944   48.818   1.000 14.60
ANISOU  595   O    ARG   75    1348     1926     2273     -427   156  -480
ATOM    596   N    GLY   76   -7.830   21.955   49.078   1.000 11.92
ANISOU  596   N    GLY   76    1268     1537     1724      -22    34 -389
ATOM    597   CA   GLY   76   -8.801   22.395   50.070   1.000 12.44
ANISOU  597   CA   GLY   76    1439     1493     1796     -315   263  -412
ATOM    598   C    GLY   76   -8.536   21.857   51.469   1.000 12.50
ANISOU  598   C    GLY   76    1324     1527     1900        5   326 -273
ATOM    599   O    GLY   76   -7.388   21.517   51.769   1.000 14.25
ANISOU  599   O    GLY   76    1100     2099     2218     -277   239 -225
ATOM    600   N    PHE   77   -9.574   21.840   52.287   1.000 12.65
ANISOU  600   N    PHE   77    1191     1806     1809     -162   231  -351
ATOM    601   CA   PHE   77   -9.526   21.474   53.694   1.000 14.00
ANISOU  601   CA   PHE   77    1295     2110     1914     -260   276  -138
ATOM    602   CB   PHE   77  -10.644   22.226   54.451   1.000 14.73
ANISOU  602   CB   PHE   77    1554     2169     1874     -402   485  -317
ATOM    603   CG   PHE   77  -10.773   21.824   55.912   1.000 17.13
ANISOU  603   CG   PHE   77    1927     2730     1849     -374   378  -243
ATOM    604   CD1  PHE   77   -9.949   22.369   56.886   1.000 19.49
ANISOU  604   CD1  PHE   77    2744     2700     1962     -119   219  -789
ATOM    605   CD2  PHE   77  -11.730   20.902   56.309   1.000 19.13
ANISOU  605   CD2  PHE   77    2348     3068     1852     -501   864  -165
ATOM    606   CE1  PHE   77  -10.068   21.973   58.217   1.000 19.75
ANISOU  606   CE1  PHE   77    2956     2381     2168     -174  -313 -304
ATOM    607   CE2  PHE   77  -11.829   20.479   57.627   1.000 18.73
ANISOU  607   CE2  PHE   77    2565     2711     1841     -382   310   -77
ATOM    608   CZ   PHE   77  -10.986   21.013   58.584   1.000 19.22
ANISOU  608   CZ   PHE   77    2378     2542     2382       98    13 -364
ATOM    609   C    PHE   77   -9.668   19.976   53.924   1.000 13.73
ANISOU  609   C    PHE   77    1306     2096     1813     -368    21 -204
ATOM    610   O    PHE   77  -10.520   19.313   53.291   1.000 16.02
ANISOU  610   O    PHE   77    1386     2508     2194     -470  -128 -425
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ATOM     611   N    THR  78   -8.869  19.439  54.852  1.000 14.33
ANISOU   611   N    THR  78    1543    2270    1629    -472   35 -49
ATOM     612   CA   THR  78   -9.034  18.053  55.276  1.000 15.80
ANISOU   612   CA   THR  78    1813    2310    1880    -508  -23  8 2
ATOM     613   CB   THR  78   -8.001  17.081  54.666  1.000 18.26
ANISOU   613   CB   THR  78    1583    2199    3158    -599  334  1 3 1
ATOM     614   OG1  THR  78   -7.924  17.323  53.266  1.000 21.81
ANISOU   614   OG1  THR  78    3351    1877    3057     -88  943  -370
ATOM     615   CG2  THR  78   -8.419  15.634  54.888  1.000 20.35
ANISOU   615   CG2  THR  78    2855    2254    2622   -1119 1108 -7 0 7
ATOM     616   C    THR  78   -8.832  17.881  56.777  1.000 19.14
ANISOU   616   C    THR  78    2845    2479    1948   -1747 -471 1 6 9
ATOM     617   O    THR  78   -7.801  18.311  57.290  1.000 22.04
ANISOU   617   O    THR  78    2781    2889    2704   -1718 -985 7 6 3
ATOM     618   N    GLY  79   -9.730  17.203  57.484  1.000 19.20
ANISOU   618   N    GLY  79    2629    2823    1844   -1352 19 4 5
ATOM     619   CA   GLY  79   -9.429  16.695  58.819  1.000 16.69
ANISOU   619   CA   GLY  79    1800    2770    1771    -518  196  - 9 5
ATOM     620   C    GLY  79   -8.672  15.376  58.720  1.000 22.98
ANISOU   620   C    GLY  79    2381    2874    3477    -272 -289 -5 4 5
ATOM     621   O    GLY  79   -9.227  14.504  58.044  1.000 25.57
ANISOU   621   O    GLY  79    3683    2520    3514    -456 -974 -1 4 1
ATOM     622   N    LEU  80   -7.494  15.236  59.319  1.000 22.91
ANISOU   622   N    LEU  80    2412    2900    3392      30 -206  -6 0 6
ATOM     623   CA   LEU  80   -6.644  14.081  59.072  1.000 25.08
ANISOU   623   CA   LEU  80    2848    2777    3904     206  621  3 6 1
ATOM     624   C    LEU  80   -6.372  13.294  60.370  1.000 24.30
ANISOU   624   C    LEU  80    2834    2762    3637    -300  480  2 0 0
ATOM     625   O    LEU  80   -5.729  13.812  61.291  1.000 25.14
ANISOU   625   O    LEU  80    2253    3017    4283      27 145  - 5
ATOM     626   CB   LEU  80   -5.318  14.480  58.415  1.000 27.16
ANISOU   626   CB   LEU  80    3057    3326    3937     379  918  6 4 1
ATOM     627   CG   LEU  80   -4.411  13.338  57.933  1.000 29.43
ANISOU   627   CG   LEU  80    3474    3505    4204     287 1260 1 7 3
ATOM     628   CD1  LEU  80   -5.145  12.438  56.956  1.000 38.31
ANISOU   628   CD1  LEU  80    5673    3891    4993   -1554 1987 -2 8 7
ATOM     629   CD2  LEU  80   -3.137  13.884  57.306  1.000 29.85
ANISOU   629   CD2  LEU  80    3502    3919    3920     125 1307 -2 6 4
ATOM     630   N    GLU  81   -6.853  12.055  60.396  1.000 25.58
ANISOU   630   N    GLU  81    2469    2759    4490    -196  -82  5 1 0
ATOM     631   CA   GLU  81   -6.739  11.038  61.415  1.000 25.98
ANISOU   631   CA   GLU  81    2739    2692    4441    -258  -55  4 2 4
ATOM     632   C    GLU  81   -5.299  10.536  61.562  1.000 26.28
ANISOU   632   C    GLU  81    2870    3268    3848     187  407  8 4 1
ATOM     633   O    GLU  81   -4.489  10.655  60.655  1.000 28.19
ANISOU   633   O    GLU  81    3709    3520    3483     253  799  - 5 4 4
ATOM     634   CB   GLU  81   -7.685   9.861  61.123  1.000 29.83
ANISOU   634   CB   GLU  81    3533    2894    4906    -770  270  1 8 1
ATOM     635   CG   GLU  81   -7.241   8.832  60.098  1.000 25.34
ANISOU   635   CG   GLU  81    1737    2915    4976     284 -1220 1 5 8
ATOM     636   CD   GLU  81   -7.568   9.156  58.649  1.000 27.00
ANISOU   636   CD   GLU  81    1841    3405    5012     475 -1887 -4 5 6
ATOM     637   OE1  GLU  81   -8.120  10.240  58.324  1.000 28.81
ANISOU   637   OE1  GLU  81    3444    3091    4413     322 -155 7 9 1
ATOM     638   OE2  GLU  81   -7.240   8.273  57.814  1.000 31.31
ANISOU   638   OE2  GLU  81    3514    3384    4999     162  352  1 0 0
ATOM     639   N    SER  82   -4.988   9.974  62.720  1.000 31.00
ANISOU   639   N    SER  82    3568    3780    4430     -65  -30  1 4 8 4
ATOM     640   CA   SER  82   -3.653   9.422  62.959  1.000 30.29
ANISOU   640   CA   SER  82    3692    3278    4540    -157 -515 1 0 1 1
ATOM     641   C    SER  82   -3.421   8.150  62.150  1.000 31.76
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ANISOU  641  C    SER  82    3995     3241     4831    -102  -1104   8 4 7
ATOM    642  O    SER  82   -4.313    7.728   61.397  1.000 34.01
ANISOU  642  O    SER  82    3193     3794     5935     458  -1188   1 3 4
ATOM    643  CB   SER  82   -3.463    9.167   64.452  1.000 34.74
ANISOU  643  CB   SER  82    4687     3907     4606    -232   -979  9 7 1
ATOM    644  OG   SER  82   -2.360    8.305   64.681  1.000 41.53
ANISOU  644  OG   SER  82    4922     5366     5490     236  -1958  9 7 0
ATOM    645  N    GLY  91  -17.230    9.498   70.136  1.000 42.64
ANISOU  645  N    GLY  91    4516     7599     4086   -2166   2340  - 4 2 7
ATOM    646  CA   GLY  91  -17.485   10.892   69.789  1.000 44.91
ANISOU  646  CA   GLY  91    6666     7702     2697   -4311  -1561   5 6 5
ATOM    647  C    GLY  91  -16.227   11.662   69.452  1.000 38.67
ANISOU  647  C    GLY  91    5455     7587     1652   -2821   -274  - 1 5 9
ATOM    648  O    GLY  91  -15.164   11.480   70.040  1.000 32.45
ANISOU  648  O    GLY  91    4241     4474     3616    -183   1152  - 4 3 9
ATOM    649  N    GLY  92  -16.332   12.558   68.474  1.000 31.97
ANISOU  649  N    GLY  92    3881     5904     2363   -1382    735   - 5 7 1
ATOM    650  CA   GLY  92  -15.232   13.412   68.075  1.000 33.02
ANISOU  650  CA   GLY  92    4121     6150     2274   -1716    851   - 9 5 6
ATOM    651  C    GLY  92  -15.223   13.696   66.572  1.000 26.22
ANISOU  651  C    GLY  92    2603     5046     2314    -885    741   - 9 4 7
ATOM    652  O    GLY  92  -16.289   13.666   65.939  1.000 23.91
ANISOU  652  O    GLY  92    2490     3396     3198    -680    548   - 5 6 7
ATOM    653  N    SER  93  -14.010   13.956   66.088  1.000 23.77
ANISOU  653  N    SER  93    2405     3917     2708    -372    736   - 5 6 0
ATOM    654  CA   SER  93  -13.801   14.287   64.690  1.000 23.41
ANISOU  654  CA   SER  93    2700     3292     2901    -386    970   - 3 9 9
ATOM    655  C    SER  93  -12.410   13.852   64.240  1.000 24.26
ANISOU  655  C    SER  93    2547     3908     2763    -286    833   - 2 2 4
ATOM    656  O    SER  93  -11.497   13.831   65.089  1.000 27.06
ANISOU  656  O    SER  93    3401     3536     3346     630     92  - 3 8 6
ATOM    657  CB   SER  93  -13.966   15.795   64.467  1.000 25.71
ANISOU  657  CB   SER  93    2811     3225     3735    -576    271   - 5 0 6
ATOM    658  OG   SER  93  -13.558   16.158   63.150  1.000 28.14
ANISOU  658  OG   SER  93    2694     3713     4284    -373    290   5 1 7
ATOM    659  N    TYR  94  -12.254   13.533   62.949  1.000 24.24
ANISOU  659  N    TYR  94    2786     3320     3104    -204    791   - 8 1 7
ATOM    660  CA   TYR  94  -10.878   13.262   62.498  1.000 23.94
ANISOU  660  CA   TYR  94    3089     2502     3505      95   1112   - 6 8 3
ATOM    661  C    TYR  94  -10.017   14.531   62.584  1.000 25.19
ANISOU  661  C    TYR  94    2601     2657     4312     147    737   - 6 2 5
ATOM    662  O    TYR  94   -8.786   14.421   62.694  1.000 30.11
ANISOU  662  O    TYR  94    2617     3095     5726     307    760   3 6
ATOM    663  CB   TYR  94  -10.800   12.659   61.098  1.000 25.64
ANISOU  663  CB   TYR  94    3566     2910     3267    -293   1331  - 5 2 5
ATOM    664  CG   TYR  94  -11.600   11.410   60.876  1.000 23.22
ANISOU  664  CG   TYR  94    3359     2768     2697     -69    784   - 2 7 4
ATOM    665  CD1  TYR  94  -12.451   11.455   59.777  1.000 26.01
ANISOU  665  CD1  TYR  94    4410     2730     2741     499    353   - 5 4 3
ATOM    666  CD2  TYR  94  -11.564   10.252   61.635  1.000 24.42
ANISOU  666  CD2  TYR  94    3117     2866     3297      73 458  - 1 4
ATOM    667  CE1  TYR  94  -13.243   10.407   59.443  1.000 28.75
ANISOU  667  CE1  TYR  94    4559     3328     3037     434    140   - 1 3 7 0
ATOM    668  CE2  TYR  94  -12.375    9.159   61.305  1.000 26.47
ANISOU  668  CE2  TYR  94    4707     2585     2764    -220   1227  - 7 1 8
ATOM    669  CZ   TYR  94  -13.209    9.247   60.212  1.000 29.70
ANISOU  669  CZ   TYR  94    5641     3518     2125   -1172   1103  - 1 4 4 7
ATOM    670  OH   TYR  94  -14.059    8.281   59.730  1.000 34.02
ANISOU  670  OH   TYR  94    3079     3962     5886    -423   1593  - 2 6 3 8
ATOM    671  N    SER  95  -10.628   15.714   62.561  1.000 22.61
ANISOU  671  N    SER  95    2460     2497     3632     -54     59  - 3 3 8
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ATOM    672  CA  SER  95   -9.924  16.975  62.750  1.000 22.54
ANISOU  672  CA  SER  95    2257    2603    3706    -120  -301 4 6
ATOM    673  C   SER  95   -9.370  17.106  64.163  1.000 23.58
ANISOU  673  C   SER  95    1811    3478    3671    -521   -88  - 8 5
ATOM    674  O   SER  95   -8.623  18.034  64.481  1.000 26.53
ANISOU  674  O   SER  95    2592    3242    4247    -469  -167 -641
ATOM    675  CB  SER  95  -10.838  18.177  62.478  1.000 27.58
ANISOU  675  CB  SER  95    3657    2556    4264     365  -379 2 8
ATOM    676  OG  SER  95  -11.506  18.093  61.242  1.000 39.40
ANISOU  676  OG  SER  95    6336    4214    4421     900  -1445 1442
ATOM    677  N   ASP  96   -9.712  16.194  65.060  1.000 25.04
ANISOU  677  N   ASP  96    2579    3688    3248    -399   277  -232
ATOM    678  CA  ASP  96   -9.228  16.317  66.422  1.000 24.42
ANISOU  678  CA  ASP  96    2603    3347    3330    -470   257  -526
ATOM    679  C   ASP  96   -7.735  16.050  66.501  1.000 24.45
ANISOU  679  C   ASP  96    2597    3228    3466    -471   162  -383
ATOM    680  O   ASP  96   -7.073  16.589  67.404  1.000 26.51
ANISOU  680  O   ASP  96    2656    4047    3370    -170   160  -798
ATOM    681  CB  ASP  96   -9.952  15.334  67.334  1.000 24.97
ANISOU  681  CB  ASP  96    2310    3806    3371    -423  -228 7 7
ATOM    682  CG  ASP  96  -11.411  15.605  67.606  1.000 26.77
ANISOU  682  CG  ASP  96    2272    4334    3566    -362  -240 716
ATOM    683  OD1 ASP  96  -11.935  16.723  67.388  1.000 33.94
ANISOU  683  OD1 ASP  96    3267    4894    4733     647   204  5 69
ATOM    684  OD2 ASP  96  -12.058  14.646  68.083  1.000 32.65
ANISOU  684  OD2 ASP  96    3624    4709    4072   -1032  1446  -202
ATOM    685  N   TYR  97   -7.254  15.226  65.581  1.000 22.21
ANISOU  685  N   TYR  97    2292    3389    2760    -376   -77  -102
ATOM    686  CA  TYR  97   -5.835  14.852  65.583  1.000 23.71
ANISOU  686  CA  TYR  97    2480    3542    2987     -27   106  644
ATOM    687  C   TYR  97   -5.026  15.828  64.743  1.000 23.06
ANISOU  687  C   TYR  97    2363    3754    2647    -410   -78  350
ATOM    688  O   TYR  97   -3.992  16.327  65.230  1.000 24.29
ANISOU  688  O   TYR  97    2205    3845    3178    -133  -230 7 4
ATOM    689  CB  TYR  97   -5.585  13.451  65.035  1.000 28.38
ANISOU  689  CB  TYR  97    3230    3324    4229     540  -450 832
ATOM    690  CG  TYR  97   -4.132  13.025  65.082  1.000 30.37
ANISOU  690  CG  TYR  97    3278    4101    4161     766  -191 671
ATOM    691  CD1 TYR  97   -3.511  12.691  66.285  1.000 30.19
ANISOU  691  CD1 TYR  97    2878    4475    4119    1106   151  951
ATOM    692  CD2 TYR  97   -3.370  12.945  63.922  1.000 29.79
ANISOU  692  CD2 TYR  97    3317    4005    3997      53  -253  544
ATOM    693  CE1 TYR  97   -2.178  12.294  66.324  1.000 32.77
ANISOU  693  CE1 TYR  97    2554    4771    5126     574   -68  763
ATOM    694  CE2 TYR  97   -2.043  12.553  63.955  1.000 32.68
ANISOU  694  CE2 TYR  97    3536    3793    5087     403   353  323
ATOM    695  CZ  TYR  97   -1.445  12.228  65.157  1.000 33.00
ANISOU  695  CZ  TYR  97    2633    4284    5622    1066   264  456
ATOM    696  OH  TYR  97   -0.121  11.845  65.156  1.000 42.66
ANISOU  696  OH  TYR  97    2572    5373    8264    1161   764  1277
ATOM    697  CB  SER  98   -3.465  16.575  62.134  1.000 23.20
ANISOU  697  CB  SER  98    2461    2766    3587     105     2  -544
ATOM    698  OG  SER  98   -3.632  15.649  61.078  1.000 26.49
ANISOU  698  OG  SER  98    3824    3059    3180    -154   238  -457
ATOM    699  C   SER  98   -5.694  17.744  61.701  1.000 18.66
ANISOU  699  C   SER  98    2301    2150    2637    -295    66 1 3
ATOM    700  O   SER  98   -6.768  17.212  61.413  1.000 20.88
ANISOU  700  O   SER  98    3042    2245    2646    -945  -249 181
ATOM    701  N   SER  98   -5.457  16.110  63.511  1.000 23.62
ANISOU  701  N   SER  98    2816    3227    2931    -441  -395 605
ATOM    702  CA  SER  98   -4.748  17.143  62.741  1.000 21.31
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ANISOU 702   CA  SER  98  2430    2687   2982   133   153   2 9 4
ATOM   703   N   MET  99  -5.307  18.891 61.148 1.000 18 .68
ANISOU 703   N   MET  99  2392    2722   1984   -978  -366 1 0 1
ATOM   704   CA  MET  99  -6.047  19.560 60.075 1.000 17 .84
ANISOU 704   CA  MET  99  2431    2620   1726   -945  -212 - 1 7
ATOM   705   CB  MET  99  -6.819  20.779 60.585 1.000 19 .71
ANISOU 705   CB  MET  99  2348    2968   2173   -679  25 6 4
ATOM   706   CG  MET  99  -8.052  20.392 61.374 1.000 23 .68
ANISOU 706   CG  MET  99  2360    3055   3582   -504  393   4 8 9
ATOM   707   SD  MET  99  -9.031  21.821 61.911 1.000 22 .33
ANISOU 707   SD  MET  99  2569    3383   2534   -522  170   - 1 2 0
ATOM   708   CE  MET  99  -8.148  22.225 63.419 1.000 36 .98
ANISOU 708   CE  MET  99  6485    4165   3401   -225  -1904 - 2 3
ATOM   709   C   MET  99  -5.070  19.954 58.973 1.000 17 .19
ANISOU 709   C   MET  99  2269    2488   1776   -960  -194 -2 0 1
ATOM   710   O   MET  99  -3.964  20.341 59.324 1.000 16 .93
ANISOU 710   O   MET  99  1932    2583   1919   -367  -208 -2 4 1
ATOM   711   N   CYS  100 -5.486  19.864 57.715 1.000 20 .00
ANISOU 711   N   CYS  100 3178    2683   1739   -1753 -358 1 6 6
ATOM   712   CA  CYS  100 -4.645  20.181 56.554 1.000 16 .64
ANISOU 712   CA  CYS  100 2213    2294   1817   -924  -563 4 6 8
ATOM   713   CB  CYS  100 -4.291  18.893 55.813 1.000 17 .74
ANISOU 713   CB  CYS  100 2161    2174   2407   560   -765 1 0 5 3
ATOM   714   SG  CYS  100 -3.035  18.928 54.552 1.000 33 .56
ANISOU 714   SG  CYS  100 5244    3511   3997   414   1509 6 0 1
ATOM   715   C   CYS  100 -5.347  21.121 55.590 1.000 13 .48
ANISOU 715   C   CYS  100 1879    1415   1829   -68   240  - 9 1
ATOM   716   O   CYS  100 -6.585  21.127 55.496 1.000 14 .49
ANISOU 716   O   CYS  100 1880    1952   1673   -497  -57  1 4
ATOM   717   N   TYR  101 -4.589  21.921 54.852 1.000 13 .35
ANISOU 717   N   TYR  101 1721    1677   1673   -254  -78  4 9
ATOM   718   CA  TYR  101 -5.016  22.753 53.755 1.000 10 .27
ANISOU 718   CA  TYR  101 926 1498    1477   -15   -141  - 2 3 1
ATOM   719   CB  TYR  101 -5.102  24.265 54.124 1.000 13 .60
ANISOU 719   CB  TYR  101 1626    1513   2027   -48   322  - 2 3 6
ATOM   720   CG  TYR  101 -5.498  25.025 52.863 1.000 17 .31
ANISOU 720   CG  TYR  101 2373    1509   2694   -158  -103 1 9 3
ATOM   721   CD1 TYR  101 -6.815  25.068 52.519 1.000 16 .38
ANISOU 721   CD1 TYR  101 2464    752 3006   190   -227  5 5
ATOM   722   CE1 TYR  101 -7.307  25.715 51.412 1.000 17 .01
ANISOU 722   CE1 TYR  101 2755    714 2993   -86   -416  1 2 2
ATOM   723   CD2 TYR  101 -4.616  25.679 52.012 1.000 19 .51
ANISOU 723   CD2 TYR  101 3032    1533   2847   -1143 -594 4 7 5
ATOM   724   CE2 TYR  101 -5.065  26.321 50.872 1.000 20 .96
ANISOU 724   CE2 TYR  101 2802    1949   3211   238   112  7 6 9
ATOM   725   CZ  TYR  101 -6.414  26.334 50.568 1.000 22 .78
ANISOU 725   CZ  TYR  101 3238    2291   3126   -1228 -919 6 2 4
ATOM   726   OH  TYR  101 -6.875  26.986 49.442 1.000 23 .10
ANISOU 726   OH  TYR  101 3141    3112   2522   -14   -129 4 2 9
ATOM   727   C   TYR  101 -4.041  22.518 52.596 1.000 11 .25
ANISOU 727   C   TYR  101 1223    1398   1654   -323  103  - 2 5 2
ATOM   728   O   TYR  101 -2.823  22.677 52.787 1.000 12 .23
ANISOU 728   O   TYR  101 1114    1750   1784   -87   130  - 2 0
ATOM   729   N   SER  102 -4.542  22.190 51.405 1.000 11 .17
ANISOU 729   N   SER  102 1355    1279   1611   -220  145  - 2 6 3
ATOM   730   CA  SER  102 -3.752  21.802 50.235 1.000 10 .46
ANISOU 730   CA  SER  102 1144    1263   1568   62 -1 -1 2 5
ATOM   731   CB  SER  102 -4.027  20.343 49.908 1.000 13 .46
ANISOU 731   CB  SER  102 1668    1212   2234   324   105  - 3 0 1
ATOM   732   OG  SER  102 -3.723  19.487 51.025 1.000 16 .42
ANISOU 732   OG  SER  102 2291    1313   2637   -122  -43  9 6
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ATOM    733  C   SER  102  -4.046  22.668  49.008  1.000 11.74
ANISOU  733  C   SER  102  1346    1500    1614    18  -39  -10
ATOM    734  O   SER  102  -5.148  23.148  48.784  1.000 12.84
ANISOU  734  O   SER  102  1480    1410    1988    90  -66  249
ATOM    735  N   MET  103  -3.004  22.871  48.187  1.000 12.33
ANISOU  735  N   MET  103  1554    1722    1409  -262  -10  -246
ATOM    736  CA  MET  103  -3.188  23.603  46.938  1.000 12.92
ANISOU  736  CA  MET  103  1663    1681    1565    22   47   -70
ATOM    737  CB  MET  103  -3.215  25.122  47.179  1.000 17.51
ANISOU  737  CB  MET  103  2439    1634    2579  -363  812   -44
ATOM    738  CG  MET  103  -1.929  25.808  47.549  1.000 20.07
ANISOU  738  CG  MET  103  2509    1470    3646  -538  688  376
ATOM    739  SD  MET  103  -2.136  27.614  47.689  1.000 18.10
ANISOU  739  SD  MET  103  2235    1665    2975    -3 -334  -352
ATOM    740  CE  MET  103  -2.365  28.068  45.991  1.000 18.09
ANISOU  740  CE  MET  103  2319    1457    3098  -187 -718 -214
ATOM    741  C   MET  103  -2.152  23.221  45.892  1.000 12.57
ANISOU  741  C   MET  103  1420    1837    1519   119  -53  238
ATOM    742  O   MET  103  -1.120  22.573  46.175  1.000 12.57
ANISOU  742  O   MET  103  1094    1891    1792  -155 -165 276
ATOM    743  N   GLY  104  -2.418  23.650  44.655  1.000 12.83
ANISOU  743  N   GLY  104  1493    1958    1422   237 -124  -34
ATOM    744  CA  GLY  104  -1.533  23.459  43.513  1.000 12.65
ANISOU  744  CA  GLY  104  1075    2188    1544   -93  -37  242
ATOM    745  C   GLY  104  -1.624  24.622  42.542  1.000 14.36
ANISOU  745  C   GLY  104  1909    1985    1561  -265 -294 142
ATOM    746  O   GLY  104  -2.033  25.700  42.967  1.000 15.69
ANISOU  746  O   GLY  104  1628    2273    2060   163 -197 213
ATOM    747  N   THR  105  -1.242  24.397  41.276  1.000 14.52
ANISOU  747  N   THR  105  1829    2182    1504   -59 -375 319
ATOM    748  CA  THR  105  -1.218  25.452  40.279  1.000 15.27
ANISOU  748  CA  THR  105  1977    2223    1603  -105 -363 365
ATOM    749  CB  THR  105  -0.359  25.083  39.039  1.000 15.61
ANISOU  749  CB  THR  105  1936    2122    1873   -37 -106 554
ATOM    750  OG1 THR  105  -0.884  23.876  38.446  1.000 16.16
ANISOU  750  OG1 THR  105  1738    2260    2140   217 -285 151
ATOM    751  CG2 THR  105   1.092  24.882  39.369  1.000 17.47
ANISOU  751  CG2 THR  105  1918    2871    1847  -293 -227 527
ATOM    752  C   THR  105  -2.603  25.828  39.755  1.000 14.73
ANISOU  752  C   THR  105  1989    1694    1913   122 -340 199
ATOM    753  O   THR  105  -2.730  26.921  39.174  1.000 19.91
ANISOU  753  O   THR  105  2579    2355    2632    23 -437  1004
ATOM    754  N   ALA  106  -3.587  24.960  39.913  1.000 16.57
ANISOU  754  N   ALA  106  1836    2413    2047     2 -260  661
ATOM    755  CA  ALA  106  -4.975  25.167  39.465  1.000 14.94
ANISOU  755  CA  ALA  106  1975    1904    1798   105 -456 365
ATOM    756  CB  ALA  106  -5.054  24.945  37.965  1.000 17.75
ANISOU  756  CB  ALA  106  2006    2862    1876   140 -201  -32
ATOM    757  C   ALA  106  -5.942  24.251  40.222  1.000 16.26
ANISOU  757  C   ALA  106  1710    2174    2293   327 -127 491
ATOM    758  O   ALA  106  -5.498  23.398  41.013  1.000 14.57
ANISOU  758  O   ALA  106  1622    1971    1945   213  -21  337
ATOM    759  N   ASP  107  -7.253  24.410  40.008  1.000 16.71
ANISOU  759  N   ASP  107  1768    2096    2485   540  -22  304
ATOM    760  CA  ASP  107  -8.310  23.638  40.633  1.000 16.10
ANISOU  760  CA  ASP  107  1696    2175    2246    51 -485  -14
ATOM    761  CB  ASP  107  -8.231  22.171  40.211  1.000 17.09
ANISOU  761  CB  ASP  107  1299    2385    2808   144 -203 -399
ATOM    762  CG  ASP  107  -8.418  21.966  38.720  1.000 21.54
ANISOU  762  CG  ASP  107  2385    2894    2906    84 -317  -722
ATOM    763  OD1 ASP  107  -9.452  22.445  38.189  1.000 23.92
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ANISOU  763    OD1 ASP   107 3447       2970    2672      698    -753 -772
ATOM    764    OD2 ASP   107 -7.563     21.311  38.080    1.000 24.88
ANISOU  764    OD2 ASP   107 2496       4004    2954      105    244   -679
ATOM    765    C   ASP   107 -8.285     23.785  42.160    1.000 14.16
ANISOU  765    C   ASP   107 1261       1918    2201      237   -447 153
ATOM    766    O   ASP   107 -8.507     22.850  42.936    1.000 16.67
ANISOU  766    O   ASP   107 2017       1927    2390     -189   -193 9 7
ATOM    767    N   ASN   108 -8.027     25.020  42.598    1.000 15.34
ANISOU  767    N   ASN   108 2093       1866    1870      82 51 2 39
ATOM    768    CA  ASN   108 -7.967     25.314  44.031    1.000 13.68
ANISOU  768    CA  ASN   108 1479       1823    1898      153    107  2 57
ATOM    769    CB  ASN   108 -6.925     26.420  44.272    1.000 15.60
ANISOU  769    CB  ASN   108 1593       2026    2309      16 267 - 98
ATOM    770    CG  ASN   108 -5.516     25.942  43.963    1.000 15.23
ANISOU  770    CG  ASN   108 1505       2141    2142      5   -53 2
ATOM    771    OD1 ASN   108 -5.086     24.932  44.505    1.000 15.40
ANISOU  771    OD1 ASN   108 1412       2442    1998     -5 -239  1 88
ATOM    772    ND2 ASN   108 -4.823     26.678  43.094    1.000 16.96
ANISOU  772    ND2 ASN   108 1593       2198    2652      339    393  2 22
ATOM    773    C   ASN   108 -9.310     25.708  44.642    1.000 14.55
ANISOU  773    C   ASN   108 1471       1937    2120      261    191  5 26
ATOM    774    O   ASN   108 -10.222    26.170  43.958    1.000 16.89
ANISOU  774    O   ASN   108 1861       2336    2219      716   -109 1 4
ATOM    775    N   LEU   109 -9.412     25.512  45.954    1.000 13.42
ANISOU  775    N   LEU   109 1458       1648    1994      179    130  9
ATOM    776    CA  LEU   109 -10.602    25.796  46.769    1.000 13.53
ANISOU  776    CA  LEU   109 1094       2122    1923     -52    -86  - 256
ATOM    777    CB  LEU   109 -11.187    24.499  47.331    1.000 14.50
ANISOU  777    CB  LEU   109 1382       1959    2169      119    455  - 468
ATOM    778    CG  LEU   109 -11.580    23.383  46.370    1.000 15.21
ANISOU  778    CG  LEU   109 1593       1785    2403      235    63 - 342
ATOM    779    CD1 LEU   109 -11.931    22.083  47.089    1.000 18.26
ANISOU  779    CD1 LEU   109 2460       1674    2806      382   -414 - 9 4
ATOM    780    CD2 LEU   109 -12.780    23.783  45.529    1.000 22.36
ANISOU  780    CD2 LEU   109 3055       2391    3052      44 -1155 2 88
ATOM    781    C   LEU   109 -10.203    26.794  47.840    1.000 13.54
ANISOU  781    C   LEU   109 1179       1989    1979      76 -116  - 259
ATOM    782    O   LEU   109 -9.416     26.428  48.717    1.000 16.15
ANISOU  782    O   LEU   109 2196       2210    1730     -52    -366 3 2
ATOM    783    N   PHE   110 -10.706    28.025  47.786    1.000 16.11
ANISOU  783    N   PHE   110 1369       2042    2709      105    -118 - 288
ATOM    784    CA  PHE   110 -10.298    29.079  48.732    1.000 17.05
ANISOU  784    CA  PHE   110 1626       1801    3050     -116    259  - 362
ATOM    785    CB  PHE   110 -9.660     30.259  47.991    1.000 17.94
ANISOU  785    CB  PHE   110 1423       2366    3027     -290    228  -129
ATOM    786    CG  PHE   110 -8.425     29.972  47.165    1.000 20.32
ANISOU  786    CG  PHE   110 1702       2650    3368     -176    459  - 385
ATOM    787    CD1 PHE   110 -7.257     29.598  47.793    1.000 20.35
ANISOU  787    CD1 PHE   110 1885       2462    3387      461    573  - 707
ATOM    788    CD2 PHE   110 -8.405     30.110  45.789    1.000 20.31
ANISOU  788    CD2 PHE   110 2073       2226    3419      512    712  - 264
ATOM    789    CE1 PHE   110 -6.102     29.347  47.065    1.000 19.49
ANISOU  789    CE1 PHE   110 1958       2116    3332      176    749  - 631
ATOM    790    CE2 PHE   110 -7.288     29.846  45.050    1.000 20.65
ANISOU  790    CE2 PHE   110 2158       2094    3596      758    724  - 321
ATOM    791    CZ  PHE   110 -6.118     29.496  45.694    1.000 19.43
ANISOU  791    CZ  PHE   110 1925       2131    3327      219    542  - 780
ATOM    792    C   PHE   110 -11.495    29.556  49.538    1.000 17.08
ANISOU  792    C   PHE   110 1774       1806    2911     -74    414  - 111
ATOM    793    O   PHE   110 -12.562    29.792  48.929    1.000 21.26
ANISOU  793    O   PHE   110 1849       2577    3650      405    178  - 448
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ATOM    794  N   PRO  111  -11.406  29.717  50.851  1.000  19.41
ANISOU  794  N   PRO  111   2279     2110    2985    -386   519  -314
ATOM    795  CD  PRO  111  -10.278  29.322  51.705  1.000  19.20
ANISOU  795  CD  PRO  111   2773     1880    2640    -417   255  -514
ATOM    796  CA  PRO  111  -12.549  30.252  51.604  1.000  21.47
ANISOU  796  CA  PRO  111   3026     1924    3206     -50   728  -635
ATOM    797  CB  PRO  111  -12.167  30.007  53.055  1.000  23.63
ANISOU  797  CB  PRO  111   3789     2054    3137     334   776  -575
ATOM    798  CG  PRO  111  -10.775  29.535  53.100  1.000  22.33
ANISOU  798  CG  PRO  111   2767     2908    2809   -1006   623  -414
ATOM    799  C   PRO  111  -12.828  31.739  51.433  1.000  23.88
ANISOU  799  C   PRO  111   3139     2049    3887      79  -142  -479
ATOM    800  O   PRO  111  -13.919  32.194  51.834  1.000  26.77
ANISOU  800  O   PRO  111   3800     2818    3555     992   -91  -397
ATOM    801  N   SER  112  -11.906  32.517  50.872  1.000  25.19
ANISOU  801  N   SER  112   3514     2269    3788    -247  -856  282
ATOM    802  CA  SER  112  -12.300  33.919  50.631  1.000  26.43
ANISOU  802  CA  SER  112   2654     2655    4734     496  1364  456
ATOM    803  CB  SER  112  -12.506  34.712  51.912  1.000  33.37
ANISOU  803  CB  SER  112   3122     3663    5895     172  2582  -510
ATOM    804  OG  SER  112  -11.322  34.719  52.688  1.000  36.94
ANISOU  804  OG  SER  112   6530     2154    5351    1399   206  -415
ATOM    805  C   SER  112  -11.262  34.587  49.723  1.000  26.62
ANISOU  805  C   SER  112   2613     2546    4956    1021  1668  651
ATOM    806  O   SER  112  -10.219  34.029  49.414  1.000  22.81
ANISOU  806  O   SER  112   2241     2782    3645     800   837  -400
ATOM    807  N   GLY  113  -11.570  35.802  49.279  1.000  28.93
ANISOU  807  N   GLY  113   2937     2947    5108    1008  1175 1198
ATOM    808  CA  GLY  113  -10.659  36.478  48.365  1.000  30.79
ANISOU  808  CA  GLY  113   2992     3606    5102     381   798 1400
ATOM    809  C   GLY  113   -9.362  36.829  49.070  1.000  31.83
ANISOU  809  C   GLY  113   3297     3919    4878     262   897  528
ATOM    810  O   GLY  113   -8.294  36.790  48.459  1.000  25.85
ANISOU  810  O   GLY  113   2920     2317    4585     857   450  -203
ATOM    811  N   ASP  114   -9.479  37.145  50.365  1.000  29.56
ANISOU  811  N   ASP  114   3487     2877    4868     866  1104  760
ATOM    812  CA  ASP  114   -8.257  37.463  51.122  1.000  26.15
ANISOU  812  CA  ASP  114   3189     2680    4066    1028  1584  542
ATOM    813  CB  ASP  114   -8.628  37.937  52.526  1.000  33.81
ANISOU  813  CB  ASP  114   5580     2697    4569    1774  1691  -240
ATOM    814  CG  ASP  114   -7.904  39.232  52.840  1.000  40.77
ANISOU  814  CG  ASP  114   6798     3734    4960     719   693  -248
ATOM    815  OD1 ASP  114   -8.330  40.277  52.295  1.000  48.61
ANISOU  815  OD1 ASP  114   6014     2534    9920    1703   931  -913
ATOM    816  OD2 ASP  114   -6.932  39.178  53.622  1.000  54.35
ANISOU  816  OD2 ASP  114   5258     7609    7783    -868   495 1602
ATOM    817  C   ASP  114   -7.310  36.281  51.231  1.000  23.05
ANISOU  817  C   ASP  114   2621     2102    4033     444  1874  340
ATOM    818  O   ASP  114   -6.111  36.371  50.955  1.000  22.05
ANISOU  818  O   ASP  114   2423     2277    3677     131  1411  -461
ATOM    819  N   PHE  115   -7.854  35.160  51.637  1.000  23.21
ANISOU  819  N   PHE  115   2945     1890    3984    -130  1293  -228
ATOM    820  CA  PHE  115   -7.120  33.896  51.690  1.000  19.93
ANISOU  820  CA  PHE  115   2562     1908    3102    -198   655  -294
ATOM    821  CB  PHE  115   -8.085  32.792  52.157  1.000  19.49
ANISOU  821  CB  PHE  115   2378     1754    3275      64   881  -314
ATOM    822  CG  PHE  115   -7.523  31.445  52.540  1.000  17.25
ANISOU  822  CG  PHE  115   2053     1589    2912     -56   348  -695
ATOM    823  CD1 PHE  115   -7.637  30.951  53.833  1.000  19.00
ANISOU  823  CD1 PHE  115   2728     1539    2950      73   496  -683
ATOM    824  CD2 PHE  115   -6.868  30.634  51.615  1.000  17.88
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ANISOU 824   CD2  PHE   115  1933      1931     2927      7   298  -810
ATOM   825   CE1  PHE   115  -7.100   29.711   54.163   1.000 20.25
ANISOU 825   CE1  PHE   115  2825      1825     3042    317   341  -575
ATOM   826   CE2  PHE   115  -6.338   29.412   51.955   1.000 19.11
ANISOU 826   CE2  PHE   115  1865      2158     3237    336   351  -885
ATOM   827   CZ   PHE   115  -6.452   28.936   53.233   1.000 19.39
ANISOU 827   CZ   PHE   115  2068      1910     3390    320   248  -669
ATOM   828   C    PHE   115  -6.506   33.624   50.327   1.000 17.86
ANISOU 828   C    PHE   115  1964      1945     2878     61  344  1 6
ATOM   829   O    PHE   115  -5.324   33.315   50.271   1.000 17.34
ANISOU 829   O    PHE   115  1868      2107     2613   -132  179  1 5 7
ATOM   830   N    GLU   116  -7.310   33.683   49.263   1.000 18.21
ANISOU 830   N    GLU   116  1921      1934     3065    547   281  6 2
ATOM   831   CA   GLU   116  -6.848   33.387   47.907   1.000 19.99
ANISOU 831   CA   GLU   116  2128      2618     2851     81  231  2 2 2
ATOM   832   CB   GLU   116  -7.968   33.605   46.884   1.000 18.61
ANISOU 832   CB   GLU   116  2058      1952     3060    231   244  2 7 0
ATOM   833   CG   GLU   116  -7.398   33.378   45.482   1.000 18.61
ANISOU 833   CG   GLU   116  1813      2288     2971    295   -32  - 3 3
ATOM   834   CD   GLU   116  -8.442   33.230   44.412   1.000 22.40
ANISOU 834   CD   GLU   116  1908      3193     3410   -122  -278  - 9 1
ATOM   835   OE1  GLU   116  -9.654   33.272   44.678   1.000 30.82
ANISOU 835   OE1  GLU   116  1793      4465     5452    273  -414  - 2 4
ATOM   836   OE2  GLU   116  -8.085   33.063   43.225   1.000 30.24
ANISOU 836   OE2  GLU   116  3333      5132     3026    382  -658  3 2 7
ATOM   837   C    GLU   116  -5.620   34.211   47.535   1.000 18.82
ANISOU 837   C    GLU   116  2090      2069     2990    294   119  4 8 7
ATOM   838   O    GLU   116  -4.605   33.701   47.049   1.000 17.41
ANISOU 838   O    GLU   116  2228      1780     2606     45  259  2 8 2
ATOM   839   N    ARG   117  -5.660   35.508   47.777   1.000 21.02
ANISOU 839   N    ARG   117  2313      2185     3487    408   220  9 0
ATOM   840   CA   ARG   117  -4.560   36.420   47.431   1.000 21.35
ANISOU 840   CA   ARG   117  2337      1800     3976    466   147  - 3 1
ATOM   841   C    ARG   117  -3.291   36.054   48.192   1.000 20.52
ANISOU 841   C    ARG   117  2292      2124     3380    353   288  - 1 0
ATOM   842   O    ARG   117  -2.186   35.969   47.636   1.000 18.96
ANISOU 842   O    ARG   117  2223      1664     3316    138   318  2 3 1
ATOM   843   CB   ARG   117  -4.971   37.885   47.693   1.000 25.59
ANISOU 843   CB   ARG   117  3237      1900     4587    929  1882 6 3 2
ATOM   844   CG   ARG   117  -3.881   38.908   47.478   1.000 32.57
ANISOU 844   CG   ARG   117  5212      1925     5237   -281  1083 6 2 3
ATOM   845   CD   ARG   117  -4.325   40.323   47.859   1.000 36.56
ANISOU 845   CD   ARG   117  6009      2157     5724    149  1774 6 6 3
ATOM   846   NE   ARG   117  -5.162   40.335   49.056   1.000 44.43
ANISOU 846   NE   ARG   117  7200      3742     5940    -96  2344  - 1 5
ATOM   847   CZ   ARG   117  -4.763   40.501   50.306   1.000 45.48
ANISOU 847   CZ   ARG   117  6422      4804     6054   -370  2388  -2 8 3
ATOM   848   NH1  ARG   117  -3.484   40.683   50.619   1.000 53.21
ANISOU 848   NH1  ARG   117  6867      6451     6900  -2543  2487 3 5 4
ATOM   849   NH2  ARG   117  -5.647   40.487   51.301   1.000 50.00
ANISOU 849   NH2  ARG   117  6265      6511     6220    224  2433  -15 3 4
ATOM   850   N    ILE   118  -3.439   35.832   49.493   1.000 19.30
ANISOU 850   N    ILE   118  2275      1838     3221    128   407  -6 4 5
ATOM   851   CA   ILE   118  -2.275   35.527   50.331   1.000 18.25
ANISOU 851   CA   ILE   118  2376      1745     2811     78  530  -4 4 9
ATOM   852   CB   ILE   118  -2.665   35.597   51.820   1.000 18.24
ANISOU 852   CB   ILE   118  2201      1726     3003    346   906  -3 0 6
ATOM   853   CG2  ILE   118  -1.712   34.851   52.732   1.000 18.49
ANISOU 853   CG2  ILE   118  2077      2158     2792   -202   308  -5 3 0
ATOM   854   CG1  ILE   118  -2.877   37.031   52.368   1.000 24.69
ANISOU 854   CG1  ILE   118  4436      1808     3136    284  1382 -4 1 4
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ATOM   855  CD1 ILE 118 -3.786 37.025 53.582 1.000 29.63
ANISOU 855  CD1 ILE 118 6169   3096   1994   189  1258 -1068
ATOM   856  C   ILE 118 -1.692 34.172 49.959 1.000 15.65
ANISOU 856  C   ILE 118 2316   1549   2082   -89   573  -117
ATOM   857  O   ILE 118 -0.463 34.035 49.802 1.000 14.59
ANISOU 857  O   ILE 118 2240   1255   2051   16  286 214
ATOM   858  N   TRP 119 -2.523 33.139 49.784 1.000 14.44
ANISOU 858  N   TRP 119 2125   1592   1771   47  128  -71
ATOM   859  CA  TRP 119 -2.010 31.795 49.518 1.000 13.68
ANISOU 859  CA  TRP 119 1712   1529   1957   -61  220   4 0
ATOM   860  CB  TRP 119 -3.089 30.755 49.932 1.000 14.93
ANISOU 860  CB  TRP 119 1819   1729   2123   -234  295  -35
ATOM   861  CG  TRP 119 -2.864 30.482 51.420 1.000 16.19
ANISOU 861  CG  TRP 119 1640   2364   2146   -168  582 167
ATOM   862  CD2 TRP 119 -2.116 29.430 51.993 1.000 20.41
ANISOU 862  CD2 TRP 119 3189   2414   2151   202   523  405
ATOM   863  CE2 TRP 119 -2.177 29.580 53.392 1.000 19.84
ANISOU 863  CE2 TRP 119 3536   1818   2184   -439  234 137
ATOM   864  CE3 TRP 119 -1.390 28.357 51.456 1.000 23.94
ANISOU 864  CE3 TRP 119 5382   1647   2068   561   126  4 0 0
ATOM   865  CD1 TRP 119 -3.340 31.223 52.460 1.000 20.05
ANISOU 865  CD1 TRP 119 3207   2343   2069   -9 189 -139
ATOM   866  NE1 TRP 119 -2.938 30.689 53.649 1.000 20.32
ANISOU 866  NE1 TRP 119 2806   2726   2188   -96   -68  -185
ATOM   867  CZ2 TRP 119 -1.547 28.714 54.281 1.000 22.12
ANISOU 867  CZ2 TRP 119 4071   2256   2078   -17   105   2 2
ATOM   868  CZ3 TRP 119 -0.761 27.490 52.332 1.000 21.52
ANISOU 868  CZ3 TRP 119 4214   2168   1794   311   -193 197
ATOM   869  CH2 TRP 119 -0.847 27.674 53.715 1.000 24.34
ANISOU 869  CH2 TRP 119 5349   2047   1850   329   148  183
ATOM   870  C   TRP 119 -1.521 31.634 48.095 1.000 14.27
ANISOU 870  C   TRP 119 2180   1259   1985   -187  334  -65
ATOM   871  O   TRP 119 -0.569 30.865 47.855 1.000 14.73
ANISOU 871  O   TRP 119 1996   1653   1946   -67   362  1 0 1
ATOM   872  N   THR 120 -2.109 32.325 47.116 1.000 13.99
ANISOU 872  N   THR 120 2231   1237   1848   106   627  -137
ATOM   873  CA  THR 120 -1.541 32.275 45.762 1.000 15.19
ANISOU 873  CA  THR 120 1903   2093   1774   9  435 -242
ATOM   874  CB  THR 120 -2.492 32.983 44.787 1.000 16.41
ANISOU 874  CB  THR 120 1934   2304   1995   -331  152   6 6
ATOM   875  OG1 THR 120 -3.738 32.297 44.766 1.000 18.53
ANISOU 875  OG1 THR 120 1891   2288   2863   -236  195  4 0 7
ATOM   876  CG2 THR 120 -1.974 32.906 43.358 1.000 18.02
ANISOU 876  CG2 THR 120 2135   2602   2108   324   322   3 1 8
ATOM   877  C   THR 120 -0.145 32.870 45.727 1.000 14.19
ANISOU 877  C   THR 120 1868   2050   1475   87 285 -167
ATOM   878  O   THR 120 0.756  32.299 45.078 1.000 13.62
ANISOU 878  O   THR 120 1864   1692   1620   301   354  2 1 7
ATOM   879  N   GLN 121 0.114  33.962 46.429 1.000 14.55
ANISOU 879  N   GLN 121 1721   1672   2136   304   175  - 6 7
ATOM   880  CA  GLN 121 1.459  34.548 46.483 1.000 15.80
ANISOU 880  CA  GLN 121 2067   1666   2271   -18   -119 3 6 2
ATOM   881  C   GLN 121 2.465  33.642 47.176 1.000 13.73
ANISOU 881  C   GLN 121 1747   1665   1806   -30   18 1 1 4
ATOM   882  O   GLN 121 3.603  33.452 46.685 1.000 15.36
ANISOU 882  O   GLN 121 2063   1688   2084   48 360  - 4 4
ATOM   883  CB  GLN 121 1.315  35.918 47.154 1.000 18.85
ANISOU 883  CB  GLN 121 2537   1426   3200   -73   -5 3 5 6
ATOM   884  CG  GLN 121 2.639  36.558 47.543 1.000 18.88
ANISOU 884  CG  GLN 121 2507   1788   2878   59 9  -248
ATOM   885  CD  GLN 121 3.468  36.936 46.337 1.000 20.70
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ANISOU  885  CD   GLN  121 2584      2138  3142   -373  -85   2 3 1
ATOM    886  OE1  GLN  121 2.935     37.088 45.224 1.000 22.47
ANISOU  886  OE1  GLN  121 2695      2822  3019   -245   0   1 2 1
ATOM    887  NE2  GLN  121 4.779     37.101 46.522 1.000 25.22
ANISOU  887  NE2  GLN  121 2426      3344  3811    127  -131 1 3 8 5
ATOM    888  N    TYR  122 2.081     33.054 48.299 1.000 12.26
ANISOU  888  N    TYR  122 1747      1514  1399     99  -55  - 2 5 8
ATOM    889  CA   TYR  122 2.896     32.102 49.050 1.000 13.18
ANISOU  889  CA   TYR  122 1901      1643  1464    -20  -253 - 1 6 0
ATOM    890  CB   TYR  122 2.211     31.724 50.364 1.000 13.78
ANISOU  890  CB   TYR  122 2045      1435  1756    116   48  - 2 8
ATOM    891  CG   TYR  122 2.994     30.808 51.282 1.000 14.22
ANISOU  891  CG   TYR  122 1966      1681  1758    101   68  1 0 1
ATOM    892  CD1  TYR  122 4.271     31.120 51.722 1.000 17.48
ANISOU  892  CD1  TYR  122 1788      1972  2882    149   -5  4 2 0
ATOM    893  CE1  TYR  122 5.003     30.284 52.576 1.000 18.55
ANISOU  893  CE1  TYR  122 2131      2050  2868    102  -404 2 5 1
ATOM    894  CD2  TYR  122 2.445     29.619 51.731 1.000 20.72
ANISOU  894  CD2  TYR  122 3308      1366  3197   -519 -1524 3 2 3
ATOM    895  CE2  TYR  122 3.140     28.773 52.574 1.000 25.40
ANISOU  895  CE2  TYR  122 3772      1812  4067   -782 -2084 8 7 3
ATOM    896  CZ   TYR  122 4.413     29.101 52.992 1.000 20.93
ANISOU  896  CZ   TYR  122 2985      1742  3224    -96 -1145 3 1 3
ATOM    897  OH   TYR  122 5.068     28.230 53.826 1.000 29.87
ANISOU  897  OH   TYR  122 4830      1998  4522   -680 -3078 6 2 1
ATOM    898  C    TYR  122 3.218     30.876 48.209 1.000 12.33
ANISOU  898  C    TYR  122 1833      1412  1439     89  -218  8 8
ATOM    899  O    TYR  122 4.395     30.507 48.117 1.000 14.25
ANISOU  899  O    TYR  122 1896      1861  1656    339  -242 2 1 6
ATOM    900  N    PHE  123 2.224     30.269 47.573 1.000 11.28
ANISOU  900  N    PHE  123 1950      1297  1041      6  -151  1 8 5
ATOM    901  CA   PHE  123 2.482     29.151 46.665 1.000 12.08
ANISOU  901  CA   PHE  123 1731      1219  1640     64  -60  2 6
ATOM    902  CB   PHE  123 1.139     28.719 46.024 1.000 13.86
ANISOU  902  CB   PHE  123 2048      1550  1666   -104  -276 - 8 2
ATOM    903  CG   PHE  123 1.311     27.516 45.099 1.000 14.44
ANISOU  903  CG   PHE  123 2173      1677  1637    142  -475 - 9 4
ATOM    904  CD1  PHE  123 1.281     26.234 45.614 1.000 13.64
ANISOU  904  CD1  PHE  123 1857      1563  1764    -42  -702 - 2 3 6
ATOM    905  CD2  PHE  123 1.511     27.664 43.729 1.000 13.81
ANISOU  905  CD2  PHE  123 1450      2164  1634   -420  -295 - 2 4 8
ATOM    906  CE1  PHE  123 1.468     25.141 44.795 1.000 17.16
ANISOU  906  CE1  PHE  123 2282      1819  2418    130  -855 - 6 4 4
ATOM    907  CE2  PHE  123 1.715     26.559 42.916 1.000 18.31
ANISOU  907  CE2  PHE  123 2098      2657  2201  -1053  172  - 8 4 5
ATOM    908  CZ   PHE  123 1.706     25.295 43.445 1.000 16.71
ANISOU  908  CZ   PHE  123 1442      2382  2526    -36  -306 - 1 0 7 7
ATOM    909  C    PHE  123 3.489     29.511 45.581 1.000 13.48
ANISOU  909  C    PHE  123 2004      1472  1645    236   157  1 8
ATOM    910  O    PHE  123 4.424     28.768 45.242 1.000 13.07
ANISOU  910  O    PHE  123 1591      1498  1876     42  -78  - 1 7 2
ATOM    911  N    ASP  124 3.294     30.684 44.948 1.000 13.83
ANISOU  911  N    ASP  124 1490      1575  2189     51  207 2 8 8
ATOM    912  CA   ASP  124 4.207     31.036 43.861 1.000 13.75
ANISOU  912  CA   ASP  124 1505      1330  2389    458   398  3 4 4
ATOM    913  CB   ASP  124 3.708     32.352 43.242 1.000 18.95
ANISOU  913  CB   ASP  124 2650      1970  2580    656   -63  9 2 6
ATOM    914  CG   ASP  124 4.470     32.708 41.989 1.000 27.54
ANISOU  914  CG   ASP  124 5327      2099  3036   -123  939  8 8 0
ATOM    915  OD1  ASP  124 4.541     31.904 41.023 1.000 37.04
ANISOU  915  OD1  ASP  124 6362      3225  4485    108  2616 - 3 3 1
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ATOM    916  OD2 ASP   124  4.985  33.843  42.011  1.000 32.60
ANISOU  916  OD2 ASP   124  4724   3509    4151   -1539  234  851
ATOM    917  C   ASP   124  5.645  31.164  44.328  1.000 14.49
ANISOU  917  C   ASP   124  1493   1721    2293    327   485  482
ATOM    918  O   ASP   124  6.591  30.721  43.674  1.000 14.52
ANISOU  918  O   ASP   124  1477   1363    2679    289   497  307
ATOM    919  N   ARG   125  5.866  31.777  45.499  1.000 14.03
ANISOU  919  N   ARG   125  1501   1271    2558    353   398  414
ATOM    920  CA  ARG   125  7.214  31.863  46.044  1.000 16.40
ANISOU  920  CA  ARG   125  1642   1625    2963    194   178  226
ATOM    921  C   ARG   125  7.828  30.494  46.346  1.000 14.69
ANISOU  921  C   ARG   125  1396   1688    2496    232   -25  153
ATOM    922  O   ARG   125  8.999  30.245  46.034  1.000 14.10
ANISOU  922  O   ARG   125  1279   1656    2424     7   -205 -201
ATOM    923  CB  ARG   125  7.213  32.705  47.318  1.000 18.13
ANISOU  923  CB  ARG   125  1950   1902    3035    787   -81   46
ATOM    924  CG  ARG   125  7.045  34.193  47.041  1.000 2,.51
ANISOU  924  CG  ARG   125  2232   1780    4919    883   -36  -225
ATOM    925  CD  ARG   125  8.391  34.815  46.694  1.000 29.33
ANISOU  925  CD  ARG   125  3596   2824    4724   -667   237  -187
ATOM    926  NE  ARG   125  8.194  36.262  46.803  1.000 32.99
ANISOU  926  NE  ARG   125  4350   2766    5418   -678  -1642 156
ATOM    927  CZ  ARG   125  8.868  37.153  47.495  1.000 27.38
ANISOU  927  CZ  ARG   125  2292   2758    5353   -276  -580 -246
ATOM    928  NH1 ARG   125  9.916  36.821  48.235  1.000 38.55
ANISOU  928  NH1 ARG   125  4611   3604    6433    449  -2476 -669
ATOM    929  NH2 ARG   125  8.491  38.423  47.442  1.000 30.26
ANISOU  929  NH2 ARG   125  4062   2570    4865   -369  -835 363
ATOM    930  N   GLN   126  7.065  29.573  46.920  1.000 12.36
ANISOU  930  N   GLN   126  1316   1376    2002    248   -63  -264
ATOM    931  CA  GLN   126  7.524  28.201  47.153  1.000 13.39
ANISOU  931  CA  GLN   126  1765   1323    1999    219  -355 -377
ATOM    932  CB AGLN   126  6.363  27.455  47.828  0.500 16.24
ANISOU  932  CB AGLN   126  2422   1391    2357    188   202  -192
ATOM    933  CG AGLN   126  6.149  27.758  49.284  0.500 18.83
ANISOU  933  CG AGLN   126  2761   2021    2371    68   233  -210
ATOM    934  CD AGLN   126  7.077  27.146  50.298  0.500 23.94
ANISOU  934  CD AGLN   126  3578   2745    2774   -604  -757  3 3
ATOM    935  OE1 AGLN   126  7.181  27.683  51.419  0.500 35.94
ANISOU  935  OE1 AGLN   126  6788   3731    3136   -578  -1567 -478
ATOM    936  NE2 AGLN   126  7.774  26.055  50.008  0.500 24.63
ANISOU  936  NE2 AGLN   126  4491   1118    3751   -881  -2407 462
ATOM    937  CB BGLN   126  6.525  27.417  48.018  0.500 13.36
ANISOU  937  CB BGLN   126  1695   1137    2245    602   -114 -255
ATOM    938  CG BGLN   126  6.604  27.750  49.497  0.500 18.28
ANISOU  938  CG BGLN   126  2537   2257    2153   -68   -176 -105
ATOM    939  CD BGLN   126  5.442  27.237  50.319  0.500 18.42
ANISOU  939  CD BGLN   126  2227   2573    2198    344  -159 106
ATOM    940  OE1 BGLN   126  5.605  26.442  51.242  0.500 25.36
ANISOU  940  OE1 BGLN   126  3289   3517    2828   -100  -223 953
ATOM    941  NE2 BGLN   126  4.231  27.685  50.003  0.500 25.02
ANISOU  941  NE2 BGLN   126  2427   2669    4413   1004   -83  -298
ATOM    942  C   GLN   126  7.860  27.448  45.861  1.000 12.95
ANISOU  942  C   GLN   126  1506   1434    1979    307  -372 -366
ATOM    943  O   GLN   126  8.859  26.721  45.748  1.000 11.66
ANISOU  943  O   GLN   126  1461   1142    1827    182   -85  159
ATOM    944  N   TYR   127  6.960  27.578  44.868  1.000 11.61
ANISOU  944  N   TYR   127  1400   1276    1735    146  -168 -10
ATOM    945  CA  TYR   127  7.152  26.869  43.585  1.000 11.21
ANISOU  945  CA  TYR   127  1469   1242    1550   -92   -40  192
ATOM    946  CB  TYR   127  5.901  26.940  42.724  1.000 11.82
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ANISOU 946   CB  TYR  127 1346    1655    1491    -13    82 4 7
ATOM   947   CG  TYR  127 5.791   26.069  41.496  1.000 11.49
ANISOU 947   CG  TYR  127 1278    1428    1660    -4 -4 1 0
ATOM   948   CD1 TYR  127 6.550   24.928  41.270  1.000 11.28
ANISOU 948   CD1 TYR  127 1030    1334    1921    -87   -100 3 3
ATOM   949   CE1 TYR  127 6.406   24.153  40.115  1.000 11.47
ANISOU 949   CE1 TYR  127 1164    1167    2027    -51   -53 2 1
ATOM   950   CD2 TYR  127 4.871   26.410  40.500  1.000 11.98
ANISOU 950   CD2 TYR  127 1677    1093    1784    204    -219 - 1 0 0
ATOM   951   CE2 TYR  127 4.715   25.655  39.357  1.000 11.37
ANISOU 951   CE2 TYR  127 1539    1118    1665    140    -68  - 7 3
ATOM   952   CZ  TYR  127 5.494   24.508  39.163  1.000 11.02
ANISOU 952   CZ  TYR  127 1202    1226    1760    91 48 - 1 2 5
ATOM   953   OH  TYR  127 5.379   23.720  38.030  1.000 11.57
ANISOU 953   OH  TYR  127 1547    1138    1712    94 177 - 3 4
ATOM   954   C   TYR  127 8.386   27.392  42.882  1.000 10.83
ANISOU 954   C   TYR  127 1296    989  1830    230    -43 378
ATOM   955   O   TYR  127 9.185   26.605  42.375  1.000 10.86
ANISOU 955   O   TYR  127 1292    1232    1603    164    -237 - 4 2
ATOM   956   N   THR  128 8.565   28.716  42.865  1.000 10.98
ANISOU 956   N   THR  128 1554    976  1642    212    -9 557
ATOM   957   CA  THR  128 9.766   29.305  42.295  1.000 11.80
ANISOU 957   CA  THR  128 1686    1125    1673    -47   -169 3 8 6
ATOM   958   CB  THR  128 9.605   30.849  42.378  1.000 12.66
ANISOU 958   CB  THR  128 1873    1074    1864    -52   -233 5 2 1
ATOM   959   OG1 THR  128 8.530   31.286  41.517  1.000 16.74
ANISOU 959   OG1 THR  128 2223    1597    2542    124    -457 9 9 8
ATOM   960   CG2 THR  128 10.878  31.510  41.893  1.000 16.54
ANISOU 960   CG2 THR  128 1871    778  3635    262    655 138
ATOM   961   C   THR  128 11.040  28.828  42.964  1.000 11.26
ANISOU 961   C   THR  128 1562    980  1738    -71    -162 1 4 8
ATOM   962   O   THR  128 11.995  28.458  42.258  1.000 12.16
ANISOU 962   O   THR  128 1769    1092    1758    17 26 279
ATOM   963   N   ALA  129 11.083  28.802  44.300  1.000 10.39
ANISOU 963   N   ALA  129 1183    1001    1763    70 -118 1 4 7
ATOM   964   CA  ALA  129 12.273  28.386  45.037  1.000 10.59
ANISOU 964   CA  ALA  129 1206    945  1873    -69    -170 2 8 1
ATOM   965   CB  ALA  129 12.113  28.603  46.536  1.000 12.46
ANISOU 965   CB  ALA  129 2113    851  1769    82 -218 5 7 7
ATOM   966   C   ALA  129 12.575  26.906  44.802  1.000 11.35
ANISOU 966   C   ALA  129 1258    883  2170    -16    -141 4 1 0
ATOM   967   O   ALA  129 13.738  26.485  44.641  1.000 10.93
ANISOU 967   O   ALA  129 1202    1157    1796    -36    -213 1 2 1
ATOM   968   N   SER  130 11.519  26.086  44.750  1.000 12.27
ANISOU 968   N   SER  130 1280    984  2398    -65    -1 - 2 4
ATOM   969   CA  SER  130 11.682  24.650  44.512  1.000 10.89
ANISOU 969   CA  SER  130 1623    876  1638    -85    44 370
ATOM   970   CB  ASER 130 10.342  23.940  44.716  0.500 10.08
ANISOU 970   CB  ASER 130 1432    603  1793    213    247 413
ATOM   971   OG  ASER 130 9.771   24.063  46.006  0.500 9.12
ANISOU 971   OG  ASER 130 1021    651  1792    91 1 - 1 4 3
ATOM   972   CB  BSER 130 10.364  23.919  44.765  0.500 10.60
ANISOU 972   CB  BSER 130 1687    822  1521    -45    318 158
ATOM   973   OG  BSER 130 9.418   24.098  43.734  0.500 16.22
ANISOU 973   OG  BSER 130 1717    1289    3156    137    -525 3 4 8
ATOM   974   C   SER  130 12.214  24.373  43.110  1.000 10.53
ANISOU 974   C   SER  130 1586    733  1684    -166   210 484
ATOM   975   O   SER  130 13.137  23.532  42.942  1.000 11.17
ANISOU 975   O   SER  130 1385    1012    1849    -151   -95 1 4 0
ATOM   976   N   ARG  131 11.680  25.044  42.079  1.000 10.46
ANISOU 976   N   ARG  131 1578    861  1534    -87    -66 9 9
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ATOM    977  CA  ARG 131 12.260  24.839  40.742  1.000 10.60
ANISOU  977  CA  ARG 131 1480    1110    1438    61 -288   8 2
ATOM    978  CB  ARG 131 11.426  25.553  39.679  1.000 12.99
ANISOU  978  CB  ARG 131 1893    1369    1673    63 -525   2 76
ATOM    979  CG  ARG 131 10.003  25.065  39.431  1.000 13.64
ANISOU  979  CG  ARG 131 1707    1735    1742   335  -559 - 86
ATOM    980  CD  ARG 131 9.349   25.669  38.206  1.000 17.71
ANISOU  980  CD  ARG 131 2078    1973    2677    81 -983  7 01
ATOM    981  NE  ARG 131 9.453   27.113  38.015  1.000 19.76
ANISOU  981  NE  ARG 131 2716    2034    2757   -25  -525 7 1 3
ATOM    982  CZ  ARG 131 8.629   28.004  38.568  1.000 21.24
ANISOU  982  CZ  ARG 131 3688    1878    2503    -8  -128  6 47
ATOM    983  NH1 ARG 131 7.631   27.634  39.366  1.000 21.32
ANISOU  983  NH1 ARG 131 2792    3142    2166  -486  -667 5 7
ATOM    984  NH2 ARG 131 8.771   29.310  38.361  1.000 27.83
ANISOU  984  NH2 ARG 131 4649    1822    4103   -90  -422 5 6 1
ATOM    985  C   ARG 131 13.714  25.323  40.688  1.000 10.42
ANISOU  985  C   ARG 131 1542    1078    1339    50 -103   1
ATOM    986  O   ARG 131 14.568  24.683  40.080  1.000 10.94
ANISOU  986  O   ARG 131 1544    1105    1506   177  -134 4 2
ATOM    987  N   ALA 132 14.028  26.438  41.343  1.000 10.97
ANISOU  987  N   ALA 132 1477    1129    1563    74 -364  - 45
ATOM    988  CA  ALA 132 15.379  26.983  41.343  1.000 11.10
ANISOU  988  CA  ALA 132 1539    944  1735     9  -102  9 7
ATOM    989  CB  ALA 132 15.429  28.344  42.048  1.000 12.82
ANISOU  989  CB  ALA 132 1711    1171    1987   -48  -248 -19 8
ATOM    990  C   ALA 132 16.393  26.045  41.995  1.000 11.55
ANISOU  990  C   ALA 132 1085    1107    2197  -197   305  7 4 5
ATOM    991  O   ALA 132 17.481  25.832  41.432  1.000 11.81
ANISOU  991  O   ALA 132 1081    1809    1599  -204    17 - 9
ATOM    992  N   VAL 133 16.061  25.490  43.175  1.000 11.16
ANISOU  992  N   VAL 133 1260    1356    1623  -148    51 3 5 0
ATOM    993  CA  VAL 133 17.011  24.587  43.840  1.000 11.62
ANISOU  993  CA  VAL 133 1505    1529    1380   -69  -297 8 9
ATOM    994  CB  VAL 133 16.738  24.418  45.344  1.000 12.14
ANISOU  994  CB  VAL 133 1376    1674    1564   -74   -25  3 64
ATOM    995  CG1 VAL 133 15.550  23.501  45.608  1.000 14.96
ANISOU  995  CG1 VAL 133 1705    2316    1662  -706     8  - 357
ATOM    996  CG2 VAL 133 17.981  23.864  46.033  1.000 15.63
ANISOU  996  CG2 VAL 133 1755    2340    1845  -341  -677 5 5 1
ATOM    997  C   VAL 133 17.079  23.268  43.065  1.000 11.71
ANISOU  997  C   VAL 133 1376    1363    1711   -24  -425 1 6 9
ATOM    998  O   VAL 133 18.198  22.733  42.925  1.000 11.55
ANISOU  998  O   VAL 133 1391    1453    1545    -4  -116  3 9 8
ATOM    999  N   ALA 134 15.982  22.758  42.480  1.000 12.87
ANISOU  999  N   ALA 134 1399    1517    1973    28  -334  - 228
ATOM   1000  CA  ALA 134 16.084  21.557  41.621  1.000 10.57
ANISOU 1000  CA  ALA 134 1106    1220    1691   153  -298 9 6
ATOM   1001  CB  ALA 134 14.699  21.096  41.186  1.000 12.20
ANISOU 1001  CB  ALA 134 1254    1589    1794    35  -303  - 127
ATOM   1002  C   ALA 134 16.968  21.797  40.399  1.000 12.58
ANISOU 1002  C   ALA 134 1393    1399    1987   272    -4 2 7 7
ATOM   1003  O   ALA 134 17.712  20.924  39.970  1.000 11.01
ANISOU 1003  O   ALA 134 1254    1358    1574    83 -268  2 6
ATOM   1004  N   ARG 135 16.908  22.995  39.809  1.000 12.03
ANISOU 1004  N   ARG 135 1517    1230    1824   -62  -327 8 7
ATOM   1005  CA  ARG 135 17.773  23.353  38.676  1.000 13.23
ANISOU 1005  CA  ARG 135 1854    1158    2015  -270  -209 1 6 1
ATOM   1006  CB  ARG 135 17.393  24.734  38.170  1.000 14.57
ANISOU 1006  CB  ARG 135 2203    1339    1994   -45  -541 2 2 2
ATOM   1007  CG  ARG 135 17.753  25.160  36.797  1.000 19.22
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ANISOU 1007 CG   ARG   135 4204    1120    1980     -490  -433 150
ATOM   1008 CD   ARG   135 17.237  26.563  36.471  1.000 22.14
ANISOU 1008 CD   ARG   135 4046    1500    2868     -159   315  822
ATOM   1009 NE   ARG   135 15.831  26.607  36.077  1.000 22.66
ANISOU 1009 NE   ARG   135 4239    1404    2965      -94    47 257
ATOM   1010 CZ   ARG   135 14.802  27.184  36.684  1.000 21.69
ANISOU 1010 CZ   ARG   135 4004    1906    2333       92  -506   6 4
ATOM   1011 NH1  ARG   135 14.917  27.843  37.833  1.000 22.26
ANISOU 1011 NH1  ARG   135 4114    2532    1812      460  -833 341
ATOM   1012 NH2  ARG   135 13.582  27.113  36.149  1.000 22.31
ANISOU 1012 NH2  ARG   135 4000    2243    2234     -544  -419  8
ATOM   1013 C    ARG   135 19.251  23.275  39.057  1.000 12.70
ANISOU 1013 C    ARG   135 1742    1264    1821     -119   -16  430
ATOM   1014 O    ARG   135 20.069  22.818  38.238  1.000 14.67
ANISOU 1014 O    ARG   135 2133    1529    1910       19  169 391
ATOM   1015 N    GLU   136 19.572  23.712  40.266  1.000 12.15
ANISOU 1015 N    GLU   136 1423    1372    1820      -36    70 430
ATOM   1016 CA   GLU   136 20.960  23.630  40.763  1.000 14.52
ANISOU 1016 CA   GLU   136 1622    1701    2194      -90  -197 371
ATOM   1017 CB   GLU   136 21.212  24.513  41.981  1.000 15.59
ANISOU 1017 CB   GLU   136 1502    1781    2642       14  -231   1 1
ATOM   1018 CG   GLU   136 21.064  26.020  41.783  1.000 18.01
ANISOU 1018 CG   GLU   136 2010    1762    3071     -232  -153 126
ATOM   1019 CD   GLU   136 21.798  26.484  40.537  1.000 20.18
ANISOU 1019 CD   GLU   136 2071    2079    3519     -308    89 369
ATOM   1020 OE1  GLU   136 22.987  26.148  40.394  1.000 24.64
ANISOU 1020 OE1  GLU   136 2060    2937    4364     -262   338   6 15
ATOM   1021 OE2  GLU   136 21.195  27.150  39.670  1.000 24.19
ANISOU 1021 OE2  GLU   136 2479    2327    4385     -381   317  14 26
ATOM   1022 C    GLU   136 21.364  22.186  41.076  1.000 14.00
ANISOU 1022 C    GLU   136 1338    1619    2361     -112  -442 2 23
ATOM   1023 O    GLU   136 22.508  21.781  40.833  1.000 13.86
ANISOU 1023 O    GLU   136 1366    1890    2009     -100  -287 329
ATOM   1024 N    VAL   137 20.472  21.338  41.580  1.000 11.78
ANISOU 1024 N    VAL   137 1309    1451    1715      148  -223 8 5
ATOM   1025 CA   VAL   137 20.753  19.896  41.771  1.000 12.49
ANISOU 1025 CA   VAL   137 1369    1522    1853      240   -69   2 89
ATOM   1026 CB   VAL   137 19.560  19.165  42.429  1.000 12.41
ANISOU 1026 CB   VAL   137 1422    1424    1869      -67   -85  - 2 04
ATOM   1027 CG1  VAL   137 19.728  17.634  42.401  1.000 12.55
ANISOU 1027 CG1  VAL   137 1371    1508    1892      182   185   1 11
ATOM   1028 CG2  VAL   137 19.355  19.607  43.852  1.000 11.35
ANISOU 1028 CG2  VAL   137 1461    1281    1572      182  -254 2 88
ATOM   1029 C    VAL   137 21.100  19.241  40.435  1.000 12.48
ANISOU 1029 C    VAL   137 1202    1428    2113      150   -16 8 5
ATOM   1030 O    VAL   137 22.057  18.462  40.287  1.000 13.03
ANISOU 1030 O    VAL   137 1021    1683    2249      149    1  146
ATOM   1031 N    LEU   138 20.309  19.562  39.401  1.000 10.28
ANISOU 1031 N    LEU   138 1198     881    1829      -15   158 226
ATOM   1032 CA   LEU   138 20.571  19.029  38.066  1.000 12.48
ANISOU 1032 CA   LEU   138 1312    1408    2024      110   273  - 5 2
ATOM   1033 CB   LEU   138 19.398  19.358  37.130  1.000 11.81
ANISOU 1033 CB   LEU   138 1260    1586    1642      -20   383  4 3
ATOM   1034 CG   LEU   138 18.036  18.726  37.457  1.000 10.77
ANISOU 1034 CG   LEU   138 1391    1397    1304      -83   219  2 13
ATOM   1035 CD1  LEU   138 16.916  19.324  36.596  1.000 12.72
ANISOU 1035 CD1  LEU   138 1416    1587    1829      -59   -25  1 73
ATOM   1036 CD2  LEU   138 18.052  17.207  37.320  1.000 14.32
ANISOU 1036 CD2  LEU   138 1986    1390    2065      -79   296  37 0
ATOM   1037 C    LEU   138 21.903  19.525  37.505  1.000 13.61
ANISOU 1037 C    LEU   138 1305    2026    1840      -65   174  5
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ATOM    1038 O    LEU  138 22.695  18.760  36.920 1.000 14.97
ANISOU  1038 O    LEU  138 1125    2247    2313    105   234   178
ATOM    1039 N    ARG  139 22.184  20.816  37.614 1.000 13.26
ANISOU  1039 N    ARG  139 1432    2046    1561    -155  219   317
ATOM    1040 CA   ARG  139 23.397  21.372  37.085 1.000 14.71
ANISOU  1040 CA   ARG  139 1648    1941    2000    -27   502   447
ATOM    1041 C    ARG  139 24.636  20.815  37.775 1.000 15.16
ANISOU  1041 C    ARG  139 1425    2101    2235    -158  324   116
ATOM    1042 O    ARG  139 25.650  20.495  37.166 1.000 18.15
ANISOU  1042 O    ARG  139 1628    2581    2688    18    612   339
ATOM    1043 CB   ARG  139 23.394  22.926  37.206 1.000 19.67
ANISOU  1043 CB   ARG  139 1749    1923    3803    -196  186   252
ATOM    1044 CG   ARG  139 24.418  23.487  36.237 1.000 28.66
ANISOU  1044 CG   ARG  139 3924    2584    4383    -2305 882   -563
ATOM    1045 CD   ARG  139 24.245  24.997  36.111 1.000 39.58
ANISOU  1045 CD   ARG  139 6801    2389    5849    -3273 119   -306
ATOM    1046 NE   ARG  139 24.910  25.660  37.210 1.000 47.91
ANISOU  1046 NE   ARG  139 9548    2435    6222    -2157 -1331 -708
ATOM    1047 CZ   ARG  139 24.493  26.682  37.928 1.000 45.42
ANISOU  1047 CZ   ARG  139 6941    4516    5802    -882  -2118 -1238
ATOM    1048 NH1  ARG  139 23.316  27.273  37.722 1.000 64.33
ANISOU  1048 NH1  ARG  139 7248    8153    9039    93    -2965 -980
ATOM    1049 NH2  ARG  139 25.309  27.109  38.888 1.000 32.62
ANISOU  1049 NH2  ARG  139 5020    4758    2616    -2746 590   167
ATOM    1050 N    ALA  140 24.562  20.684  39.096 1.000 14.85
ANISOU  1050 N    ALA  140 1287    2204    2151    -517  -26   -46
ATOM    1051 CA   ALA  140 25.730  20.257  39.856 1.000 15.80
ANISOU  1051 CA   ALA  140 989     2649    2366    -309  -9    -401
ATOM    1052 CB   ALA  140 25.444  20.442  41.330 1.000 19.36
ANISOU  1052 CB   ALA  140 2685    2447    2222    243   -435  -480
ATOM    1053 C    ALA  140 26.111  18.806  39.584 1.000 16.86
ANISOU  1053 C    ALA  140 1555    2795    2054    12    -186  -458
ATOM    1054 O    ALA  140 27.258  18.403  39.796 1.000 18.90
ANISOU  1054 O    ALA  140 1538    2686    2958    -21   60    145
ATOM    1055 N    THR  141 25.147  18.025  39.098 1.000 17.53
ANISOU  1055 N    THR  141 1779    2532    2350    -528  218   -108
ATOM    1056 CA   THR  141 25.340  16.625  38.765 1.000 15.59
ANISOU  1056 CA   THR  141 1256    2401    2268    -192  -95   291
ATOM    1057 CB   THR  141 24.207  15.735  39.343 1.000 14.77
ANISOU  1057 CB   THR  141 1238    2200    2172    155   282   301
ATOM    1058 OG1  THR  141 22.946  16.168  38.849 1.000 12.47
ANISOU  1058 OG1  THR  141 1249    1565    1926    -31   295   476
ATOM    1059 CG2  THR  141 24.167  15.818  40.859 1.000 14.82
ANISOU  1059 CG2  THR  141 1394    2077    2160    135   -47   177
ATOM    1060 C    THR  141 25.423  16.374  37.257 1.000 16.11
ANISOU  1060 C    THR  141 1732    2046    2343    303   583   325
ATOM    1061 O    THR  141 25.432  15.235  36.778 1.000 17.55
ANISOU  1061 O    THR  141 1991    2104    2573    237   555   249
ATOM    1062 N    GLY  142 25.474  17.416  36.446 1.000 17.74
ANISOU  1062 N    GLY  142 2127    2197    2416    303   260   501
ATOM    1063 CA   GLY  142 25.611  17.263  34.987 1.000 17.32
ANISOU  1063 CA   GLY  142 1642    2494    2447    -160  453   517
ATOM    1064 C    GLY  142 24.426  16.556  34.358 1.000 16.37
ANISOU  1064 C    GLY  142 1619    1893    2710    261   472   42
ATOM    1065 O    GLY  142 24.654  15.824  33.379 1.000 18.43
ANISOU  1065 O    GLY  142 2243    2558    2201    57    798   163
ATOM    1066 N    THR  143 23.232  16.738  34.907 1.000 13.99
ANISOU  1066 N    THR  143 1531    1429    2356    83    430   350
ATOM    1067 CA   THR  143 22.049  16.003  34.472 1.000 14.69
ANISOU  1067 CA   THR  143 1768    1591    2223    8     342   93
ATOM    1068 CB   THR  143 21.208  15.584  35.700 1.000 15.52
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ANISOU 1068 CB  THR  143 1457     1653     2785    55 419 5 2 9
ATOM   1069 OG1 THR  143 22.037   14.784   36.573  1.000 14.63
ANISOU 1069 OG1 THR  143 1296     1792     2471    52 434 3 6 9
ATOM   1070 CG2 THR  143 20.044   14.738   35.231  1.000 14.24
ANISOU 1070 CG2 THR  143 1761     1981     1669    3  379 1 9 2
ATOM   1071 C   THR  143 21.135   16.785   33.532  1.000 13.96
ANISOU 1071 C   THR  143 1553     1708     2044    128   479  - 1 3 1
ATOM   1072 O   THR  143 20.642   17.828   33.923  1.000 15.65
ANISOU 1072 O   THR  143 2374     1580     1995    315   486  5 5
ATOM   1073 N   GLU  144 20.928   16.279   32.322  1.000 15.32
ANISOU 1073 N   GLU  144 1734     1904     2184    -156  260  - 2 7 1
ATOM   1074 CA  GLU  144 19.917   16.693   31.362  1.000 17.30
ANISOU 1074 CA  GLU  144 1686     2470     2417    -377  152  1 0 6
ATOM   1075 C   GLU  144 18.774   15.693   31.292  1.000 16.84
ANISOU 1075 C   GLU  144 1633     2380     2386    -298  313  - 2 4 2
ATOM   1076 O   GLU  144 18.922   14.631   30.680  1.000 16.71
ANISOU 1076 O   GLU  144 1470     2057     2821    -43   610  5 8
ATOM   1077 CB  GLU  144 20.539   16.856   29.970  1.000 21.91
ANISOU 1077 CB  GLU  144 2747     3417     2162    -1508 31 - 8
ATOM   1078 CG  GLU  144 19.568   17.063   28.825  1.000 37.93
ANISOU 1078 CG  GLU  144 6652     4374     3385    -2037 -2082 1 7 6 7
ATOM   1079 CD  GLU  144 19.293   18.507   28.466  1.000 43.55
ANISOU 1079 CD  GLU  144 7869     4258     4419    -2497 -2259 2 1 2 9
ATOM   1080 OE1 GLU  144 19.602   19.365   29.326  1.000 51.81
ANISOU 1080 OE1 GLU  144 9843     4613     5230    -3180 -832 1 1 2 6
ATOM   1081 OE2 GLU  144 18.766   18.798   27.367  1.000 40.12
ANISOU 1081 OE2 GLU  144 5551     6029     3662    -285  -115 2 6 6 0
ATOM   1082 N   PRO  145 17.620   15.959   31.908  1.000 14.29
ANISOU 1082 N   PRO  145 1634     1364     2432    -4 208 2 6 5
ATOM   1083 CD  PRO  145 17.256   17.136   32.718  1.000 14.14
ANISOU 1083 CD  PRO  145 1735     1778     1859    -55   32 1 6 7
ATOM   1084 CA  PRO  145 16.507   15.000   31.807  1.000 13.72
ANISOU 1084 CA  PRO  145 1484     1391     2337    66 173 4 6 6
ATOM   1085 CB  PRO  145 15.406   15.701   32.606  1.000 14.20
ANISOU 1085 CB  PRO  145 1459     1636     2302    161   -41 2 8 9
ATOM   1086 CG  PRO  145 16.132   16.608   33.561  1.000 14.43
ANISOU 1086 CG  PRO  145 1796     2007     1679    -23   -42 4 4 9
ATOM   1087 C   PRO  145 16.076   14.794   30.372  1.000 15.18
ANISOU 1087 C   PRO  145 1745     1665     2359    -192  231 2 8 7
ATOM   1088 O   PRO  145 16.178   15.685   29.509  1.000 15.40
ANISOU 1088 O   PRO  145 2430     1511     1910    -85   613 - 1 5
ATOM   1089 N   ASP  146 15.544   13.613   30.070  1.000 15.79
ANISOU 1089 N   ASP  146 2019     1611     2367    -191  666 8 1
ATOM   1090 CA  ASP  146 14.918   13.366   28.773  1.000 16.74
ANISOU 1090 CA  ASP  146 2095     1759     2506    -348  575 - 7 7
ATOM   1091 CB  ASP  146 14.300   11.966   28.727  1.000 18.99
ANISOU 1091 CB  ASP  146 2508     1729     2977    -323  780 - 4 3 9
ATOM   1092 CG  ASP  146 13.504   11.784   27.444  1.000 27.04
ANISOU 1092 CG  ASP  146 4012     2450     3813    -720  -229 - 8 0 5
ATOM   1093 OD1 ASP  146 12.295   12.121   27.409  1.000 38.65
ANISOU 1093 OD1 ASP  146 3943     4889     5852    -595  -1282 - 3 2 3
ATOM   1094 OD2 ASP  146 14.091   11.311   26.466  1.000 39.95
ANISOU 1094 OD2 ASP  146 6913     5052     3214    16 0 -1182
ATOM   1095 C   ASP  146 13.860   14.441   28.552  1.000 16.65
ANISOU 1095 C   ASP  146 2461     1904     1961    -128  580 - 4 0
ATOM   1096 O   ASP  146 13.041   14.605   29.457  1.000 15.67
ANISOU 1096 O   ASP  146 2110     1935     1908    -334  381 - 4 2 0
ATOM   1097 N   GLY  147 13.871   15.149   27.429  1.000 20.60
ANISOU 1097 N   GLY  147 3484     2416     1927    -26   419 1 2 9
ATOM   1098 CA  GLY  147 12.903   16.212   27.155  1.000 18.06
ANISOU 1098 CA  GLY  147 2771     2451     1638    -382  98 9 3
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ATOM    1099 C    GLY 147 13.361 17.574 27.609 1.000 18.73
ANISOU  1099 C    GLY 147 2836   2195   2085   -524  143   5 27
ATOM    1100 O    GLY 147 12.676 18.570 27.282 1.000 18.34
ANISOU  1100 O    GLY 147 2865   2416   1687   -413  -72   3 89
ATOM    1101 N    GLY 148 14.498 17.634 28.316 1.000 16.35
ANISOU  1101 N    GLY 148 2936   1506   1772   -157  142   8 8
ATOM    1102 CA   GLY 148 15.116 18.889 28.747 1.000 15.34
ANISOU  1102 CA   GLY 148 2723   1279   1829   55 450   -26
ATOM    1103 C    GLY 148 14.768 19.339 30.144 1.000 12.97
ANISOU  1103 C    GLY 148 2231   1416   1280   -93   -62   4 07
ATOM    1104 O    GLY 148 13.769 18.930 30.771 1.000 13.79
ANISOU  1104 O    GLY 148 2301   1376   1561   -164  88 323
ATOM    1105 N    VAL 149 15.604 20.224 30.718 1.000 12.81
ANISOU  1105 N    VAL 149 1815   1366   1686   155   -31   2 38
ATOM    1106 CA   VAL 149 15.388 20.724 32.079 1.000 11.81
ANISOU  1106 CA   VAL 149 1333   1390   1765   54 -92 129
ATOM    1107 CB   VAL 149 16.594 21.636 32.480 1.000 11.97
ANISOU  1107 CB   VAL 149 1136   1696   1717   -100  246   1 24
ATOM    1108 CG1  VAL 149 16.358 22.336 33.802 1.000 15.26
ANISOU  1108 CG1  VAL 149 1941   1922   1936   -195  55 -223
ATOM    1109 CG2  VAL 149 17.868 20.794 32.538 1.000 17.21
ANISOU  1109 CG2  VAL 149 1231   2045   3265   45 102 -103
ATOM    1110 C    VAL 149 14.101 21.482 32.280 1.000 11.32
ANISOU  1110 C    VAL 149 1186   1303   1813   -78   131   4 79
ATOM    1111 O    VAL 149 13.378 21.218 33.253 1.000 12.35
ANISOU  1111 O    VAL 149 1664   1423   1608   -71   229   1 67
ATOM    1112 N    GLU 150 13.752 22.463 31.460 1.000 11.96
ANISOU  1112 N    GLU 150 1347   1453   1746   29 -36 420
ATOM    1113 CA   GLU 150 12.592 23.286 31.815 1.000 10.90
ANISOU  1113 CA   GLU 150 1623   1359   1159   118   0   4 05
ATOM    1114 CB   GLU 150 12.608 24.601 30.999 1.000 17.60
ANISOU  1114 CB   GLU 150 2530   1470   2687   181   -161 9 0 7
ATOM    1115 CG   GLU 150 13.811 25.488 31.314 1.000 17.86
ANISOU  1115 CG   GLU 150 2744   797 3246   246   434 2 0 2
ATOM    1116 CD   GLU 150 13.956 25.929 32.738 1.000 19.47
ANISOU  1116 CD   GLU 150 3018   1353   3027   -97   -84   6 62
ATOM    1117 OE1  GLU 150 12.951 26.005 33.475 1.000 18.21
ANISOU  1117 OE1  GLU 150 3035   1512   2373   -178  -321 5 36
ATOM    1118 OE2  GLU 150 15.109 26.237 33.122 1.000 22.59
ANISOU  1118 OE2  GLU 150 2993   1664   3927   -38   -150 2 84
ATOM    1119 C    GLU 150 11.277 22.533 31.705 1.000 12.22
ANISOU  1119 C    GLU 150 1429   1540   1676   235   147   - 5
ATOM    1120 O    GLU 150 10.341 22.757 32.530 1.000 13.44
ANISOU  1120 O    GLU 150 1739   1474   1894   315   470 2 88
ATOM    1121 N    ALA 151 11.118 21.625 30.742 1.000 11.88
ANISOU  1121 N    ALA 151 1783   1255   1477   94 45 253
ATOM    1122 CA   ALA 151 9.881  20.844 30.698 1.000 13.82
ANISOU  1122 CA   ALA 151 1744   2054   1454   -100  -413 3 96
ATOM    1123 CB   ALA 151 9.739  20.094 29.390 1.000 14.89
ANISOU  1123 CB   ALA 151 1489   2318   1851   22 -269   - 35
ATOM    1124 C    ALA 151 9.792  19.864 31.867 1.000 12.71
ANISOU  1124 C    ALA 151 1448   1463   1920   93 41 424
ATOM    1125 O    ALA 151 8.655  19.580 32.280 1.000 14.69
ANISOU  1125 O    ALA 151 1535   2114   1932   -242  204   - 1 08
ATOM    1126 N    PHE 152 10.925 19.401 32.410 1.000 11.73
ANISOU  1126 N    PHE 152 1598   1259   1598   120   9   2 71
ATOM    1127 CA   PHE 152 10.890 18.554 33.602 1.000 10.61
ANISOU  1127 CA   PHE 152 1444   1061   1526   -33   34 160
ATOM    1128 CB   PHE 152 12.293 17.981 33.820 1.000 10.23
ANISOU  1128 CB   PHE 152 1317   1132   1437   -144  207   4 10
ATOM    1129 CG   PHE 152 12.517 17.187 35.095 1.000 10.36
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ANISOU 1129 CG   PHE   152 1388     1149     1399      -34    147    2 7 6
ATOM   1130 CD1  PHE   152 12.036   15.896   35.229   1.000 11.24
ANISOU 1130 CD1  PHE   152 1479     1047     1743      114   -103  5 6 6
ATOM   1131 CD2  PHE   152 13.229   17.701   36.154   1.000 11.21
ANISOU 1131 CD2  PHE   152 1489     1449     1319      85 174  1 5 1
ATOM   1132 CE1  PHE   152 12.252   15.163   36.380   1.000 10.80
ANISOU 1132 CE1  PHE   152 1400     1234     1467      249   -111  3 7 3
ATOM   1133 CE2  PHE   152 13.431   16.992   37.341   1.000 11.82
ANISOU 1133 CE2  PHE   152 1709     1622     1160     -276   414   2 5 0
ATOM   1134 CZ   PHE   152 12.932   15.717   37.457   1.000 11.97
ANISOU 1134 CZ   PHE   152 1651     1604     1293     -255   296   1 7 0
ATOM   1135 C    PHE   152 10.430   19.292   34.858   1.000 12.24
ANISOU 1135 C    PHE   152 1754     1168     1730      -10   339   8 4
ATOM   1136 O    PHE   152 9.728    18.729   35.726   1.000 11.49
ANISOU 1136 O    PHE   152 1672     1142     1550      200   109   2 7 7
ATOM   1137 N    LEU   153 10.809   20.575   34.997   1.000 11.86
ANISOU 1137 N    LEU   153 2030     1236     1240     --6 73  1 5 6
ATOM   1138 CA   LEU   153 10.532   21.386   36.155   1.000 11.99
ANISOU 1138 CA   LEU   153 1890     1229     1437     -165   307   8 5
ATOM   1139 CB   LEU   153 11.654   22.420   36.353   1.000 12.81
ANISOU 1139 CB   LEU   153 1691     1381     1794      -72   97  - 4 0
ATOM   1140 CG   LEU   153 13.059   21.910   36.592   1.000 12.87
ANISOU 1140 CG   LEU   153 1762     1645     1483      146   269   6 4
ATOM   1141 CD1  LEU   153 14.027   23.081   36.611   1.000 15.99
ANISOU 1141 CD1  LEU   153 1609     2006     2462      -49    450  - 4 3 1
ATOM   1142 CD2  LEU   153 13.185   21.158   37.914   1.000 19.37
ANISOU 1142 CD2  LEU   153 3091     2462     1806      809   275   5 4 0
ATOM   1143 C    LEU   153 9.179    22.084   36.123   1.000 12.96
ANISOU 1143 C    LEU   153 1728     1253     1943     -336   360   - 4 3
ATOM   1144 O    LEU   153 8.709    22.506   37.193   1.000 13.24
ANISOU 1144 O    LEU   153 1617     1302     2109     -443   481   - 1 8 2
ATOM   1145 N    ASP   154 8.568    22.203   34.955   1.000 13.29
ANISOU 1145 N    ASP   154 1643     1457     1951      60 517  2 8 0
ATOM   1146 CA   ASP   154 7.195    22.671   34.764   1.000 14.21
ANISOU 1146 CA   ASP   154 1862     1255     2280      313    631   6 8 3
ATOM   1147 CB   ASP   154 6.995    23.269   33.373   1.000 18.38
ANISOU 1147 CB   ASP   154 2091     2156     2738      328    728   1 4 7 5
ATOM   1148 CG   ASP   154 5.534    23.367   32.929   1.000 22.95
ANISOU 1148 CG   ASP   154 2323     3543     2855      676    430   1 5 0 1
ATOM   1149 OD1  ASP   154 4.685    23.607   33.820   1.000 20.85
ANISOU 1149 OD1  ASP   154 2164     2368     3389      895    478   1 1 4 4
ATOM   1150 OD2  ASP   154 5.168    23.254   31.702   1.000 24.33
ANISOU 1150 OD2  ASP   154 2989     3146     3110      228    48 1 1 2 8
ATOM   1151 C    ASP   154 6.294    21.455   34.985   1.000 11.22
ANISOU 1151 C    ASP   154 1594     1403     1265      123    147   4 1 0
ATOM   1152 O    ASP   154 6.043    20.729   34.015   1.000 13.31
ANISOU 1152 O    ASP   154 2143     1728     1186      427    219   1 7 0
ATOM   1153 N    CYS   155 5.891    21.220   36.233   1.000 9.91
ANISOU 1153 N    CYS   155 1425     1098     1243      -76    186   2 7
ATOM   1154 CA   CYS   155 5.446    19.881   36.627   1.000 9.41
ANISOU 1154 CA   CYS   155 1294     1168     1115      -13    154   1 7 2
ATOM   1155 CB   CYS   155 6.635    19.171   37.269   1.000 10.64
ANISOU 1155 CB   CYS   155 1276     1015     1753      28 -51  - 1 2 2
ATOM   1156 SG   CYS   155 7.316    19.819   38.797   1.000 12.01
ANISOU 1156 SG   CYS   155 1376     1554     1633     -195   -199  9 5
ATOM   1157 C    CYS   155 4.138    19.885   37.423   1.000 9.66
ANISOU 1157 C    CYS   155 1301     1355     1013      115    146   2 1 6
ATOM   1158 O    CYS   155 3.215    20.645   37.064   1.000 11.61
ANISOU 1158 O    CYS   155 1349     1386     1676      130    116   2 9 4
ATOM   1159 N    GLU   156 4.021    19.033   38.442   1.000 10.26
ANISOU 1159 N    GLU   156 1263     1495     1139      -29    168   2 9 9
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ATOM    1160 CA   GLU   156  2.778   18.787  39.173  1.000  9.04
ANISOU  1160 CA   GLU   156   998  1160     1278    -76    -37  236
ATOM    1161 CB   GLU   156  2.300   17.391  38.772  1.000 11.63
ANISOU  1161 CB   GLU   156  1187  1348     1885    -67   -135 -190
ATOM    1162 CG   GLU   156  1.841   17.282  37.326  1.000 14.29
ANISOU  1162 CG   GLU   156  1741  1640     2049   -628   -507  5 0
ATOM    1163 CD   GLU   156  0.502   17.949  37.039  1.000 17.90
ANISOU  1163 CD   GLU   156  1772  2692     2336   -365   -686 137
ATOM    1164 OE1  GLU   156 -0.220   18.241  38.024  1.000 19.17
ANISOU  1164 OE1  GLU   156  1429  2973     2884   -632   -270 253
ATOM    1165 OE2  GLU   156  0.136   18.198  35.858  1.000 22.03
ANISOU  1165 OE2  GLU   156  2449  3269     2653   -243   -721 924
ATOM    1166 C    GLU   156  2.961   18.942  40.677  1.000  9.21
ANISOU  1166 C    GLU   156  1166  1135     1197    -26    239 183
ATOM    1167 O    GLU   156  2.828   17.997  41.476  1.000 11.22
ANISOU  1167 O    GLU   156  1631  1199     1434    103    162  4 31
ATOM    1168 N    PRO   157  3.337   20.158  41.118  1.000 10.29
ANISOU  1168 N    PRO   157  1329  1201     1381   -109     21 123
ATOM    1169 CD   PRO   157  3.527   21.407  40.359  1.000 10.17
ANISOU  1169 CD   PRO   157  1381  1093     1391    -40    -30  2 1
ATOM    1170 CA   PRO   157  3.618   20.363  42.553  1.000 10.28
ANISOU  1170 CA   PRO   157  1160  1354     1391    -12    -61  6 4
ATOM    1171 CB   PRO   157  4.173   21.805  42.590  1.000 12.44
ANISOU  1171 CB   PRO   157  1832  1567     1330   -397     20  5 8
ATOM    1172 CG   PRO   157  3.475   22.471  41.429  1.000 10.44
ANISOU  1172 CG   PRO   157  1469  1259     1237   -388    166   -15
ATOM    1173 C    PRO   157  2.387   20.269  43.450  1.000 10.83
ANISOU  1173 C    PRO   157  1206  1554     1357    -89    -61  7 6
ATOM    1174 O    PRO   157  1.247   20.422  42.992  1.000 11.38
ANISOU  1174 O    PRO   157  1157  1742     1426    -93    -64  3 3
ATOM    1175 N    LEU   158  2.561   19.988  44.742  1.000  9.91
ANISOU  1175 N    LEU   158  1011  1308     1447    -86    -53  15 1
ATOM    1176 CA   LEU   158  1.524   19.940  45.764  1.000 10.85
ANISOU  1176 CA   LEU   158  1319  1461     1344   -387     -2  - 3
ATOM    1177 CB   LEU   158  1.152   18.482  46.078  1.000 11.03
ANISOU  1177 CB   LEU   158  1280  1447     1464   -251     99  9 3
ATOM    1178 CG   LEU   158  0.111   18.239  47.155  1.000 12.01
ANISOU  1178 CG   LEU   158  1271  1497     1795   -303    241  12 8
ATOM    1179 CD1  LEU   158 -1.212   18.826  46.736  1.000 16.21
ANISOU  1179 CD1  LEU   158  1224  2249     2685   -111     41 -239
ATOM    1180 CD2  LEU   158 -0.086   16.736  47.397  1.000 17.17
ANISOU  1180 CD2  LEU   158  2656  1542     2325   -254   1273 174
ATOM    1181 C    LEU   158  1.997   20.626  47.048  1.000 11.22
ANISOU  1181 C    LEU   158  1496  1366     1402    110   -304  5
ATOM    1182 O    LEU   158  3.056   20.201  47.539  1.000 11.28
ANISOU  1182 O    LEU   158  1283  1368     1635     20   -262  7 5
ATOM    1183 N    LEU   159  1.234   21.599  47.548  1.000 10.86
ANISOU  1183 N    LEU   159  1103  1744     1278     68   -180  - 70
ATOM    1184 CA   LEU   159  1.540   22.278  48.797  1.000 11.62
ANISOU  1184 CA   LEU   159  1247  1761     1407    -59    -68  -180
ATOM    1185 CB   LEU   159  1.494   23.802  48.640  1.000 12.44
ANISOU  1185 CB   LEU   159  1624  1747     1354   -209    -73  - 33
ATOM    1186 CG   LEU   159  1.633   24.635  49.934  1.000 12.83
ANISOU  1186 CG   LEU   159  1600  1698     1576    246    -54  -215
ATOM    1187 CD1  LEU   159  2.947   24.435  50.651  1.000 14.28
ANISOU  1187 CD1  LEU   159  2019  2250     1158    177   -292 104
ATOM    1188 CD2  LEU   159  1.442   26.134  49.640  1.000 13.33
ANISOU  1188 CD2  LEU   159  1802  1721     1543     87    -87  - 20
ATOM    1189 C    LEU   159  0.537   21.846  49.868  1.000 11.24
ANISOU  1189 C    LEU   159  1393  1474     1404   -174     -9 -271
ATOM    1190 O    LEU   159 -0.665   21.940  49.620  1.000 13.70
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ANISOU 1190 O    LEU   159 1354   2395   1457   -328   34  -269
ATOM   1191 N    ARG   160 1.013  21.385 51.010 1.000 14.59
ANISOU 1191 N    ARG   160 1737   2569   1239   -390  -128 -224
ATOM   1192 CA   ARG   160 0.158  21.030 52.153 1.000 13.94
ANISOU 1192 CA   ARG   160 1265   2631   1402   157   -137 9 2
ATOM   1193 CB   ARG   160 0.161  19.528 52.343 1.000 18.20
ANISOU 1193 CB   ARG   160 1932   2645   2338   -301  32 193
ATOM   1194 CG   ARG   160 -0.423 18.661 51.252 1.000 25.12
ANISOU 1194 CG   ARG   160 3451   2902   3191   -653  -787 2 3
ATOM   1195 CD   ARG   160 -0.765 17.301 51.831 1.000 31.98
ANISOU 1195 CD   ARG   160 4825   3598   3729   -1994 -905 321
ATOM   1196 NE   ARG   160 -1.284 16.322 50.896 1.000 26.15
ANISOU 1196 NE   ARG   160 3392   2957   3587   -739  -1056 310
ATOM   1197 CZ   ARG   160 -0.970 15.044 50.779 1.000 25.30
ANISOU 1197 CZ   ARG   160 3195   3390   3028   94 -785  295
ATOM   1198 NH1  ARG   160 -0.063 14.433 51.552 1.000 31.26
ANISOU 1198 NH1  ARG   160 3654   4142   4080   -629  -1089 20 54
ATOM   1199 NH2  ARG   160 -1.572 14.308 49.850 1.000 28.82
ANISOU 1199 NH2  ARG   160 4020   3122   3807   -13   -966 -90
ATOM   1200 C    ARG   160 0.649  21.669 53.447 1.000 15.12
ANISOU 1200 C    ARG   160 1649   2863   1232   104   -66  125
ATOM   1201 O    ARG   160 1.804  21.556 53.863 1.000 17.09
ANISOU 1201 O    ARG   160 1291   3411   1791   -400  74 -812
ATOM   1202 N    PHE   161 -0.258 22.369 54.114 1.000 14.95
ANISOU 1202 N    PHE   161 1512   2506   1660   -253  -8 -146
ATOM   1203 CA   PHE   161 -0.036 22.949 55.427 1.000 13.27
ANISOU 1203 CA   PHE   161 1600   1681   1760   -9 -249  -41
ATOM   1204 CB   PHE   161 -0.587 24.381 55.472 1.000 16.82
ANISOU 1204 CB   PHE   161 1594   1947   2851   384   58 6 4
ATOM   1205 CG   PHE   161 -0.317 25.109 56.771 1.000 22.56
ANISOU 1205 CG   PHE   161 2464   2424   3684   -39   790  -1067
ATOM   1206 CD1  PHE   161 -1.175 25.010 57.849 1.000 26.03
ANISOU 1206 CD1  PHE   161 3353   2919   3620   267   1106 -702
ATOM   1207 CD2  PHE   161 0.822  25.901 56.885 1.000 25.34
ANISOU 1207 CD2  PHE   161 2353   3265   4011   -179  -161 -738
ATOM   1208 CE1  PHE   161 -0.943 25.660 59.051 1.000 30.50
ANISOU 1208 CE1  PHE   161 4784   3324   3481   -972  1456 -620
ATOM   1209 CE2  PHE   161 1.061  26.553 58.080 1.000 26.10
ANISOU 1209 CE2  PHE   161 2546   3067   4302   -129  281  -1127
ATOM   1210 CZ   PHE   161 0.199  26.438 59.164 1.000 30.06
ANISOU 1210 CZ   PHE   161 3839   3197   4386   -152  774  -677
ATOM   1211 C    PHE   161 -0.737 22.073 56.447 1.000 13.93
ANISOU 1211 C    PHE   161 1842   1946   1503   -334  -277 -240
ATOM   1212 O    PHE   161 -1.916 21.843 56.270 1.000 18.26
ANISOU 1212 O    PHE   161 2000   3277   1662   -744  -399 475
ATOM   1213 N    ARG   162 -0.090 21.631 57.503 1.000 16.29
ANISOU 1213 N    ARG   162 2063   2516   1610   -937  -523 7 7
ATOM   1214 CA   ARG   162 -0.635 20.719 58.483 1.000 15.62
ANISOU 1214 CA   ARG   162 1772   2512   1650   -519  -266 7 6
ATOM   1215 C    ARG   162 -0.476 21.312 59.890 1.000 17.48
ANISOU 1215 C    ARG   162 1855   3131   1656   -603  -186 -76
ATOM   1216 O    ARG   162 0.609  21.734 60.251 1.000 17.23
ANISOU 1216 O    ARG   162 1928   3063   1557   -771  -42  -160
ATOM   1217 CB   ARG   162 0.081  19.374 58.458 1.000 21.99
ANISOU 1217 CB   ARG   162 3309   2318   2727   -272  -737 -22
ATOM   1218 CG   ARG   162 -0.573 18.322 59.348 1.000 26.07
ANISOU 1218 CG   ARG   162 3488   2375   4041   489   655  280
ATOM   1219 CD   ARG   162 -0.231 16.896 58.886 1.000 25.85
ANISOU 1219 CD   ARG   162 3106   2221   4495   418   -2 239
ATOM   1220 NE   ARG   162 -0.943 15.916 59.698 1.000 28.83
ANISOU 1220 NE   ARG   162 4379   2437   4139   -181  332  -177
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ATOM   1221 CZ  ARG  162 -0.642  14.633 59.879 1.000 27.99
ANISOU 1221 CZ  ARG  162 4271    2497   3868   -179   962   8   4
ATOM   1222 NH1 ARG  162 0.429   14.119 59.273 1.000 26.61
ANISOU 1222 NH1 ARG  162 3200    3167   3742   -91   -126  -2 6 8
ATOM   1223 NH2 ARG  162 -1.408  13.883 60.658 1.000 34.20
ANISOU 1223 NH2 ARG  162 3807    3522   5663   -986   702   7 8 0
ATOM   1224 N   TYR  163 -1.570  21.296 60.622 1.000 16.77
ANISOU 1224 N   TYR  163 1803    2865   1705   -484  -194   8   4
ATOM   1225 CA  TYR  163 -1.627  21.749 61.997 1.000 16.73
ANISOU 1225 CA  TYR  163 1819    2770   1766   -692   -51   4   0
ATOM   1226 CB  TYR  163 -2.712  22.804 62.116 1.000 18.99
ANISOU 1226 CB  TYR  163 2479    2560   2175   -427  -303  -2 1 4
ATOM   1227 CG  TYR  163 -3.173  23.206 63.488 1.000 23.52
ANISOU 1227 CG  TYR  163 2573    3821   2544   -16   -335  -8 6 8
ATOM   1228 CD1 TYR  163 -2.316  23.848 64.367 1.000 31.80
ANISOU 1228 CD1 TYR  163 3613    5005   3466   -1151 304   -2 3 3 8
ATOM   1229 CE1 TYR  163 -2.731  24.222 65.625 1.000 40.74
ANISOU 1229 CE1 TYR  163 5855    5676   3950   -1906 976   -3 1 1 6
ATOM   1230 CD2 TYR  163 -4.459  22.965 63.931 1.000 32.55
ANISOU 1230 CD2 TYR  163 3307    5654   3408   -1066 639   -2 3 4 0
ATOM   1231 CE2 TYR  163 -4.902  23.332 65.189 1.000 42.99
ANISOU 1231 CE2 TYR  163 5626    6630   4080   -2352 1989  -2 9 4 9
ATOM   1232 CZ  TYR  163 -4.017  23.960 66.025 1.000 42.52
ANISOU 1232 CZ  TYR  163 6281    5799   4075   -1721 1943  -3 7 1 4
ATOM   1233 OH  TYR  163 -4.380  24.351 67.274 1.000 48.87
ANISOU 1233 OH  TYR  163 8167    6831   3569   -269  1801  -3 0 5 2
ATOM   1234 C   TYR  163 -1.935  20.551 62.896 1.000 17.90
ANISOU 1234 C   TYR  163 2872    2353   1575   -894  -465  -1 7 3
ATOM   1235 O   TYR  163 -2.933  19.858 62.653 1.000 18.12
ANISOU 1235 O   TYR  163 2694    2130   2060   -732  -615  6   7
ATOM   1236 N   PHE  164 -1.112  20.326 63.898 1.000 18.32
ANISOU 1236 N   PHE  164 2516    2621   1826   -614  -402  -9 0
ATOM   1237 CA  PHE  164 -1.340  19.381 64.984 1.000 23.44
ANISOU 1237 CA  PHE  164 4176    2692   2038   -727  -669  2 1 9
ATOM   1238 CB  PHE  164 -0.073  18.617 65.327 1.000 26.02
ANISOU 1238 CB  PHE  164 4594    2824   2470   -459  -822  3 7 9
ATOM   1239 CG  PHE  164 0.407   17.669 64.231 1.000 29.00
ANISOU 1239 CG  PHE  164 4118    3639   3263   -518  -427  -2 5 4
ATOM   1240 CD1 PHE  164 1.224   18.118 63.205 1.000 27.11
ANISOU 1240 CD1 PHE  164 3040    4013   3249   -198  -821  4
ATOM   1241 CD2 PHE  164 0.051   16.332 64.240 1.000 28.37
ANISOU 1241 CD2 PHE  164 3935    3139   3704   472    30   -6 4
ATOM   1242 CE1 PHE  164 1.657   17.248 62.223 1.000 28.13
ANISOU 1242 CE1 PHE  164 2730    3926   4034   -43   -229  6
ATOM   1243 CE2 PHE  164 0.459   15.464 63.250 1.000 31.71
ANISOU 1243 CE2 PHE  164 4719    3694   3635   -293  657   -3 8 3
ATOM   1244 CZ  PHE  164 1.276   15.924 62.234 1.000 30.26
ANISOU 1244 CZ  PHE  164 3827    3808   3862   0   300   1 2 6
ATOM   1245 C   PHE  164 -1.775  20.160 66.228 1.000 24.65
ANISOU 1245 C   PHE  164 3541    4049   1777   -1025 -455  3   7
ATOM   1246 O   PHE  164 -0.889  20.713 66.885 1.000 25.54
ANISOU 1246 O   PHE  164 3520    4167   2019   -921  -440  -2 5 7
ATOM   1247 N   PRO  165 -3.058  20.293 66.527 1.000 32.24
ANISOU 1247 N   PRO  165 3641    5095   3513   -1894 266   -6 8 0
ATOM   1248 CA  PRO  165 -3.486  21.012 67.720 1.000 32.98
ANISOU 1248 CA  PRO  165 3570    5737   3225   -1271 397   -3 2 2
ATOM   1249 C   PRO  165 -2.854  20.429 68.986 1.000 38.48
ANISOU 1249 C   PRO  165 4355    6808   3457   -1872 40  3 4 3
ATOM   1250 O   PRO  165 -2.551  19.230 69.034 1.000 53.87
ANISOU 1250 O   PRO  165 9948    7012   3507   -959  692   1 7 5 0
ATOM   1251 CB  PRO  165 -5.001  20.820 67.769 1.000 37.76
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ANISOU 1251 CB  PRO 165 3640      6479      4227      -1488 380  -717
ATOM   1252 CG  PRO 165 -5.417   20.048    66.569    1.000 36.16
ANISOU 1252 CG  PRO 165 3341      6449      3948      -518 -349 -398
ATOM   1253 CD  PRO 165 -4.197   19.816    65.734    1.000 35.70
ANISOU 1253 CD  PRO 165 3440      6296      3828      -1656 -5 -604
ATOM   1254 N   LEU 178 4.459     8.087    66.987    1.000 36.23
ANISOU 1254 N   LEU 178 4509      3338      5918      -26  1216 1175
ATOM   1255 CA  LEU 178 4.994     9.117    66.116    1.000 28.63
ANISOU 1255 CA  LEU 178 3397      3170      4312      377  1344 401
ATOM   1256 CB  LEU 178 5.882     8.534    65.027    1.000 30.08
ANISOU 1256 CB  LEU 178 3497      3245      4688      760  752 -620
ATOM   1257 CG  LEU 173 7.245     7.948    65.348    1.000 29.43
ANISOU 1257 CG  LEU 178 3557      2950      4674      667  371 -979
ATOM   1258 CD1 LEU 178 7.859     7.367    64.073    1.000 32.13
ANISOU 1258 CD1 LEU 178 2972      4524      4713      586  810 -790
ATOM   1259 CD2 LEU 178 8.208     8.964    65.937    1.000 41.71
ANISOU 1259 CD2 LEU 178 5303      3695      6850      356  -1656 -1154
ATOM   1260 C   LEU 178 3.885     9.909    65.420    1.000 27.18
ANISOU 1260 C   LEU 178 2107      3534      4686      -175 1776 833
ATOM   1261 O   LEU 178 2.845     9.351    65.086    1.000 39.60
ANISOU 1261 O   LEU 178 2407      4624      8016      -1253 1290 2183
ATOM   1262 N   ARG 179 4.128    11.200    65.160    1.000 25.65
ANISOU 1262 N   ARG 179 2220      3437      4089      -216 878 741
ATOM   1263 CA  ARG 179 3.231    11.973    64.321    1.000 25.04
ANISOU 1263 CA  ARG 179 1860      3289      4365      69 641 1 5
ATOM   1264 C   ARG 179 3.297    11.572    62.852    1.000 24.51
ANISOU 1264 C   ARG 179 2158      2721      4434      39 99 -89
ATOM   1265 O   ARG 179 2.295    11.687    62.139    1.000 28.60
ANISOU 1265 O   ARG 179 2545      3242      5079      441  -332 -256
ATOM   1266 CB  ARG 179 3.517    13.480    64.451    1.000 28.58
ANISOU 1266 CB  ARG 179 3980      3317      3561      -110 -843 5 7
ATOM   1267 CG  ARG 179 2.936    14.092    65.724    1.000 30.01
ANISOU 1267 CG  ARG 179 3817      3725      3862      57 -957 -3 72
ATOM   1268 CD  ARG 179 3.307    15.570    65.757    1.000 31.51
ANISOU 1268 CD  ARG 179 4457      3675      3840      90 -1514 -338
ATOM   1269 NE  ARG 179 2.925    16.126    67.058    1.000 37.82
ANISOU 1269 NE  ARG 179 7035      3190      4144      153  -310 -1 5
ATOM   1270 CZ  ARG 179 2.897    17.425    67.292    1.000 39.43
ANISOU 1270 CZ  ARG 179 8420      3029      3532      -479 580 4 0 0
ATOM   1271 NH1 ARG 179 3.213    18.286    66.331    1.000 59.73
ANISOU 1271 NH1 ARG 179 11745     4676      6273      -1045 3177 1722
ATOM   1272 NH2 ARG 179 2.548    17.896    68.457    1.000 33.13
ANISOU 1272 NH2 ARG 179 5661      3832      3094      275  -1463 -173
ATOM   1273 N   MET 180 4.455    11.099    62.424    1.000 21.43
ANISOU 1273 N   MET 180 2013      2457      3674      -395 108 -222
ATOM   1274 CA  MET 180 4.695    10.539    61.108    1.000 20.07
ANISOU 1274 CA  MET 180 2346      1965      3315      -349 -300 151
ATOM   1275 C   MET 180 5.802     9.482    61.182    1.000 17.33
ANISOU 1275 C   MET 180 2251      2080      2254      -332 -86 3 37
ATOM   1276 O   MET 180 6.894     9.757    61.677    1.000 18.52
ANISOU 1276 O   MET 180 2237      2019      2781      -398 -79 5 2
ATOM   1277 CB  MET 180 5.041    11.646    60.136    1.000 22.64
ANISOU 1277 CB  MET 180 2571      2321      3709      -197 -549 683
ATOM   1278 CG  MET 180 5.065    11.367    58.678    1.000 27.90
ANISOU 1278 CG  MET 180 3918      3095      3588      -453 -654 913
ATOM   1279 SD  MET 130 4.945    12.838    57.629    1.000 25.01
ANISOU 1279 SD  MET 180 2936      2942      3626      -399 124 851
ATOM   1280 CE  MET 180 4.385    12.010    56.147    1.000 37.00
ANISOU 1280 CE  MET 180 5917      3450      4690      -258 -2680 1204
ATOM   1281 N   ALA 181 5.467     8.295    60.680    1.000 16.99
ANISOU 1281 N   ALA 181 2144      2139      2174      -90  -558 299
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ATOM    1282 CA   ALA   181 6.396    7.168   60.676 1.000 16.12
ANISOU  1282 CA   ALA   181 2275     1958    1890    -171 -343 6 0 2
ATOM    1283 CB   ALA   181 5.668    5.891   60.279 1.000 20.24
ANISOU  1283 CB   ALA   181 2857     2158    2673    -648  694 1 0 6
ATOM    1284 C    ALA   181 7.576    7.409   59.738 1.000 15.43
ANISOU  1284 C    ALA   181 2223     1717    1925    -315 -369 4 3 2
ATOM    1285 O    ALA   181 7.458    8.198   58.783 1.000 15.49
ANISOU  1285 O    ALA   181 2268     1761    1858    -173 -296 4 3 4
ATOM    1286 N    PRO   182 8.698    6.733   59.986 1.000 16.03
ANISOU  1286 N    PRO   182 2517     1745    1829      32  -78 5 3 1
ATOM    1287 CD   PRO   182 8.983    5.802   61.101 1.000 19.61
ANISOU  1287 CD   PRO   182 2321     2908    2221    -210 -306 12 4 0
ATOM    1288 CA   PRO   182 9.865    6.907   59.076 1.000 14.78
ANISOU  1288 CA   PRO   182 2573     1336    1706    -101  -86  2 9 9
ATOM    1289 CB   PRO   182 10.914   5.948   59.649 1.000 16.20
ANISOU  1289 CB   PRO   182 2570     1978    1607     170 -251 7 7
ATOM    1290 CG   PRO   182 10.479   5.713   61.066 1.000 19.28
ANISOU  1290 CG   PRO   182 2301     3071    1952    -199 -245 10 0 1
ATOM    1291 C    PRO   182 9.541    6.571   57.627 1.000 14.90
ANISOU  1291 C    PRO   182 2230     1658    1772    -421 -262 3 4 0
ATOM    1292 O    PRO   182 8.920    5.573   57.249 1.000 15.38
ANISOU  1292 O    PRO   182 2301     1587    1957    -467 -482 5 3 9
ATOM    1293 N    HIS   183 9.969    7.460   56.730 1.000 12.28
ANISOU  1293 N    HIS   183 1737     1312    1617    -154 -284 1 5 6
ATOM    1294 CA   HIS   183 9.733    7.354   55.300 1.000 11.90
ANISOU  1294 CA   HIS   183 1413     1495    1614    -254 -351 3 5
ATOM    1295 CB   HIS   183 8.300    7.824   54.922 1.000 12.43
ANISOU  1295 CB   HIS   183 1399     1368    1957    -128 -241 1 1 2
ATOM    1296 CG   HIS   183 8.168    9.314   55.089 1.000 11.36
ANISOU  1296 CG   HIS   183 1349     1369    1600    -367 -295 5 6
ATOM    1297 CD2  HIS   183 8.259    10.374  54.249 1.000 12.03
ANISOU  1297 CD2  HIS   183 1684     1296    1589     -43  157 - 1 0
ATOM    1298 ND1  HIS   183 7.989    9.858   56.339 1.000 13.27
ANISOU  1298 ND1  HIS   183 1901     1439    1700     -65  267 1 9 3
ATOM    1299 CE1  HIS   183 7.943    11.187  56.244 1.000 12.43
ANISOU  1299 CE1  HIS   183 1939     1490    1296      77 -244  1 5 0
ATOM    1300 NE2  HIS   183 8.101    11.515  54.992 1.000 11.04
ANISOU  1300 NE2  HIS   183 1560     1437    1199     215 -232 4 8
ATOM    1301 C    HIS   183 10.749   8.176   54.515 1.000 12.27
ANISOU  1301 C    HIS   183 1446     1639    1577    -303 -282 - 6 7
ATOM    1302 O    HIS   183 11.433   9.032   55.064 1.000 12.94
ANISOU  1302 O    HIS   183 1496     1915    1505    -558 -292 1 5
ATOM    1303 N    TYR   184 10.849   7.907   53.215 1.000 10.61
ANISOU  1303 N    TYR   184 1453     1027    1552     -41 -380 1 1 0
ATOM    1304 CA   TYR   184 11.483   8.800   52.256 1.000 11.36
ANISOU  1304 CA   TYR   184 1475     1104    1738     -71 -264 1 7 8
ATOM    1305 CB   TYR   184 12.628   8.151   51.481 1.000 11.79
ANISOU  1305 CB   TYR   184 1631     1114    1734     -62 -197 3 4
ATOM    1306 CG   TYR   184 12.368   6.907   50.677 1.000 11.29
ANISOU  1306 CG   TYR   184 1680      921    1688     225 -893 1 7 4
ATOM    1307 CD1  TYR   184 12.156   5.659   51.268 1.000 11.76
ANISOU  1307 CD1  TYR   184 1663      927    1879     388 -487 1 9 0
ATOM    1308 CE1  TYR   184 11.911   4.526   50.492 1.000 12.64
ANISOU  1308 CE1  TYR   184 1960      878    1964     173  -40 1 8 2
ATOM    1309 CD2  TYR   184 12.333   6.949   49.279 1.000 11.13
ANISOU  1309 CD2  TYR   184 1252     1302    1674     109 -283 9 3
ATOM    1310 CE2  TYR   184 12.102   5.834   48.502 1.000 12.93
ANISOU  1310 CE2  TYR   184 1944     1422    1546      49 -384 7 3
ATOM    1311 CZ   TYR   184 11.898   4.611   49.121 1.000 13.14
ANISOU  1311 CZ   TYR   184 1717     1304    1972      30 -611 6 7
ATOM    1312 OH   TYR   184 11.663   3.490   48.343 1.000 15.45
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ANISOU 1312 OH  TYR 184 2028   1471   2373    42 -476  - 247
ATOM   1313 C   TYR 184 10.447 9.390  51.314 1.000 11.50
ANISOU 1313 C   TYR 184 1445   1215   1709   -187 -201 348
ATOM   1314 O   TYR 184 9.362  8.797  51.089 1.000 11.75
ANISOU 1314 O   TYR 184 1305   1308   1853   -106 -171 427
ATOM   1315 N   ASP 185 10.784 10.557 50.743 1.000 10.79
ANISOU 1315 N   ASP 185 1581   1069   1449   -141 -132 118
ATOM   1316 CA  ASP 185 9.861  11.218 49.815 1.000 9.10
ANISOU 1316 CA  ASP 185 1089   1093   1277   -326  23 206
ATOM   1317 CB  ASP 185 9.934  12.743 49.886 1.000 10.13
ANISOU 1317 CB  ASP 185 1427   1095   1327   -298 -178 177
ATOM   1318 CG  ASP 185 9.540  13.388 51.185 1.000 11.79
ANISOU 1318 CG  ASP 185 1797   1350   1333   -250 -149 1 1
ATOM   1319 OD1 ASP 185 9.681  14.638 51.278 1.000 13.79
ANISOU 1319 OD1 ASP 185 2050   1316   1875    135  -52  - 26
ATOM   1320 OD2 ASP 185 9.114  12.755 52.189 1.000 13.31
ANISOU 1320 OD2 ASP 185 1805   1848   1405   -411  -63 1 05
ATOM   1321 C   ASP 185 10.098 10.759 48.371 1.000 9.44
ANISOU 1321 C   ASP 185 1036   1150   1401   -309  -26 1 0 0
ATOM   1322 O   ASP 185 11.234 10.469 48.005 1.000 10.64
ANISOU 1322 O   ASP 185 1167   1376   1500   -127  -35  - 206
ATOM   1323 N   LEU 186 9.038  10.684 47.568 1.000 10.09
ANISOU 1323 N   LEU 186 1211   1186   1437   -272 -177 - 5 8
ATOM   1324 CA  LEU 186 9.124  10.312 46.161 1.000 10.60
ANISOU 1324 CA  LEU 186 1641   986   1401   -239  -52 - 4 4
ATOM   1325 CB  LEU 186 8.030  9.295  45.798 1.000 11.32
ANISOU 1325 CB  LEU 186 1652   929   1721   -111   17 - 4 7 9
ATOM   1326 CG  LEU 186 7.989  7.977  46.602 1.000 12.60
ANISOU 1326 CG  LEU 186 1408   1039   2340   -263 -200 - 166
ATOM   1327 CD1 LEU 186 6.896  7.064  46.028 1.000 16.64
ANISOU 1327 CD1 LEU 186 1900   1373   3049   -634 -398 - 135
ATOM   1328 CD2 LEU 186 9.356  7.332  46.629 1.000 13.84
ANISOU 1328 CD2 LEU 186 1438   1245   2575   -155  443  2 8 3
ATOM   1329 C   LEU 186 9.024  11.521 45.223 1.000 10.90
ANISOU 1329 C   LEU 186 1327   1211   1603    -3 -451  1 6 4
ATOM   1330 O   LEU 186 8.768  11.406 44.031 1.000 13.60
ANISOU 1330 O   LEU 186 2067   1608   1494   -211 -321 1 03
ATOM   1331 N   SER 187 9.264  12.705 45.734 1.000 10.71
ANISOU 1331 N   SER 187 1546   1129   1393    -76 -282 3 18
ATOM   1332 CA  SER 187 9.401  13.943 44.998 1.000 10.49
ANISOU 1332 CA  SER 187 1427   1191   1370    195 -107 4 8 8
ATOM   1333 CB  SER 187 9.221  15.103 46.002 1.000 10.56
ANISOU 1333 CB  SER 187 1105   1048   1857    298  161  5 3 2
ATOM   1334 OG  SER 187 10.430 14.918 46.726 1.000 13.01
ANISOU 1334 OG  SER 187 1343   1432   2169   -132 -295 2 01
ATOM   1335 C   SER 187 10.774 14.062 44.336 1.000 10.47
ANISOU 1335 C   SER 187 1447   862   1669    135   -3 1 4 5
ATOM   1336 O   SER 187 11.684 13.246 44.513 1.000 10.54
ANISOU 1336 O   SER 187 1577   799   1629    183  -91 - 7 7
ATOM   1337 N   MET 188 10.962 15.095 43.502 1.000 9.78
ANISOU 1337 N   MET 188 1419   978   1318    147   44 7 4
ATOM   1338 CA  MET 188 12.267 15.584 43.065 1.000 9.94
ANISOU 1338 CA  MET 188 1394   942   1441    182   58 3 7
ATOM   1339 CB  MET 188 12.128 16.543 41.891 1.000 10.89
ANISOU 1339 CB  MET 188 1523   840   1774     98  48 2 2 7
ATOM   1340 CG  MET 188 13.385 17.258 41.470 1.000 11.40
ANISOU 1340 CG  MET 188 1403   1172   1756     46 -51 2 1 4
ATOM   1341 SD  MET 188 14.687 16.134 40.891 1.000 12.71
ANISOU 1341 SD  MET 188 1619   1272   1940    139  137  1 9 8
ATOM   1342 CE  MET 188 16.061 17.267 40.790 1.000 13.86
ANISOU 1342 CE  MET 188 1862   1399   2003    -2 911 - 9 0
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- 134 -

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ATOM   1343 C    MET  188 12.946  16.217  44.291  1.000 12.13
ANISOU 1343 C    MET  188 1325    1586    1698     169  -18  -285
ATOM   1344 O    MET  188 13.971  15.727  44.804  1.000 11.52
ANISOU 1344 O    MET  188 1288    1553    1535     144  132   8 7
ATOM   1345 N    VAL  189 12.362  17.290  44.838  1.000 10.00
ANISOU 1345 N    VAL  189 1290    1217    1292      53 -175   6
ATOM   1346 CA   VAL  189 12.745  17.894  46.099  1.000  9.70
ANISOU 1346 CA   VAL  189 1209    1057    1420    -212  -45  -19
ATOM   1347 CB   VAL  189 13.618  19.154  45.979  1.000  9.97
ANISOU 1347 CB   VAL  189 1288    1103    1398    -238  129  189
ATOM   1348 CG1  VAL  189 14.953  18.837  45.266  1.000 13.45
ANISOU 1348 CG1  VAL  189 1334    1410    2368    -236  390  143
ATOM   1349 CG2  VAL  189 12.899  20.289  45.264  1.000 12.24
ANISOU 1349 CG2  VAL  189 1715    1242    1693     -25  150  295
ATOM   1350 C    VAL  189 11.469  18.245  46.871  1.000 10.10
ANISOU 1350 C    VAL  189 1089    1600    1149    -456 -156  -73
ATOM   1351 O    VAL  189 10.405  18.399  46.250  1.000  9.53
ANISOU 1351 O    VAL  189 1153    1249    1217    -222 -190 8
ATOM   1352 N    THR  190 11.609  18.327  48.187  1.000  8.66
ANISOU 1352 N    THR  190 1273     894    1123      15 -202  127
ATOM   1353 CA   THR  190 10.565  18.771  49.091  1.000  9.64
ANISOU 1353 CA   THR  190 1350    1167    1147     -11 -228 -99
ATOM   1354 CB   THR  190 10.194  17.699  50.132  1.000 10.69
ANISOU 1354 CB   THR  190 1231    1196    1635    -300  121  -54
ATOM   1355 OG1  THR  190  9.662  16.586  49.501  1.000 12.45
ANISOU 1355 OG1  THR  190 1333    1341    2055    -140 -258 -48
ATOM   1356 CG2  THR  190  9.038  18.131  51.019  1.000 13.59
ANISOU 1356 CG2  THR  190 1121    2222    1821    -272  151  -195
ATOM   1357 C    THR  190 11.058  19.976  49.891  1.000  9.23
ANISOU 1357 C    THR  190 1257    1096    1152    -102 -336 -49
ATOM   1358 O    THR  190 12.149  19.867  50.447  1.000 10.54
ANISOU 1358 O    THR  190 1322    1292    1390      -5 -359  -122
ATOM   1359 N    LEU  191 10.313  21.064  49.978  1.000 10.23
ANISOU 1359 N    LEU  191 1319    1167    1401     -71 -177 -133
ATOM   1360 CA   LEU  191 10.691  22.241  50.770  1.000 10.19
ANISOU 1360 CA   LEU  191 1259    1176    1438       0 -294  -142
ATOM   1361 CB   LEU  191 10.604  23.511  49.910  1.000 11.52
ANISOU 1361 CB   LEU  191 1203    1185    1990    -118 -601 3 2
ATOM   1362 CG   LEU  191 11.897  23.898  49.167  1.000 13.23
ANISOU 1362 CG   LEU  191 1898    1710    1419    -391 -358 9 7
ATOM   1363 CD1  LEU  191 12.333  22.794  48.218  1.000 15.25
ANISOU 1363 CD1  LEU  191 1685    2018    2091    -476 -214 -305
ATOM   1364 CD2  LEU  191 11.717  25.231  48.448  1.000 17.46
ANISOU 1364 CD2  LEU  191 2310    2044    2281     -14   17 604
ATOM   1365 C    LEU  191  9.798  22.328  52.006  1.000 11.93
ANISOU 1365 C    LEU  191 1275    1677    1579      56 -190  -372
ATOM   1366 O    LEU  191  8.560  22.262  51.868  1.000 13.49
ANISOU 1366 O    LEU  191 1276    2173    1676       1 -192  -601
ATOM   1367 N    ILE  192 10.394  22.483  53.190  1.000 11.06
ANISOU 1367 N    ILE  192 1115    1603    1487    -111  -92  -108
ATOM   1368 CA   ILE  192  9.671  22.539  54.443  1.000 11.13
ANISOU 1368 CA   ILE  192 1071    1638    1521      11 -173  -149
ATOM   1369 CB   ILE  192  9.927  21.304  55.330  1.000 12.94
ANISOU 1369 CB   ILE  192 2099    1586    1232     -65   -9 -233
ATOM   1370 CG2  ILE  192  9.221  21.428  56.673  1.000 16.06
ANISOU 1370 CG2  ILE  192 2479    1983    1641    -206  426  -215
ATOM   1371 CG1  ILE  192  9.512  20.028  54.590  1.000 15.51
ANISOU 1371 CG1  ILE  192 2633    1658    1601    -400  -48  -175
ATOM   1372 CD1  ILE  192  9.845  18.765  55.339  1.000 25.71
ANISOU 1372 CD1  ILE  192 5869    1608    2290    -175 -1566 -301
ATOM   1373 C    ILE  192  9.966  23.809  55.253  1.000 11.47
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ANISOU 1373 C    ILE   192 1330      1603    1427    -4 -222  -1 2 2
ATOM   1374 O    ILE   192 11.123  24.106  55.567  1.000 13 .33
ANISOU 1374 O    ILE   192 1344      1738    1981    -96  -289  -2 1 9
ATOM   1375 N    GLN   193 8.904   24.525  55.602  1.000 15 .78
ANISOU 1375 N    GLN   193 1316      2462    2219    -64   -5  -9 7 5
ATOM   1376 CA   GLN   193 8.987   25.653  56.533  1.000 14 .56
ANISOU 1376 CA   GLN   193 1582      1858    2091    212  -304  -5 2 9
ATOM   1377 CB   GLN   193 8.449   26.975  56.020  1.000 20 .03
ANISOU 1377 CB   GLN   193 2226      2203    3180    318  -329 14 2
ATOM   1378 CG   GLN   193 9.203   27.684  54.914  1.000 23 .86
ANISOU 1378 CG   GLN   193 3399      2492    3174    313   45 2 80
ATOM   1379 CD   GLN   193 8.665   29.079  54.675  1.000 22 .92
ANISOU 1379 CD   GLN   193 3250      2363    3097    78 -477  2 0 5
ATOM   1380 OE1  GLN   193 7.603   29.292  54.099  1.000 27 .68
ANISOU 1380 OE1  GLN   193 4175      3310    3031    552  -1214  2 9
ATOM   1381 NE2  GLN   193 9.411   30.075  55.134  1.000 27 .01
ANISOU 1381 NE2  GLN   193 3187      2667    4408    -440  124  1 7
ATOM   1382 C    GLN   193 8.216   25.265  57.804  1.000 15 .14
ANISOU 1382 C    GLN   193 1945      1827    1982    136  -174  -7 2 2
ATOM   1383 O    GLN   193 7.147   24.662  57.714  1.000 27 .80
ANISOU 1383 O    GLN   193 2523      6225    1817    -1586 -592 2 35
ATOM   1384 N    GLN   194 8.714   25.552  58.978  1.000 19 .80
ANISOU 1384 N    GLN   194 2994      2502    2025    -632  -752 3 3
ATOM   1385 CA   GLN   194 8.100   25.080  60.213  1.000 22 .89
ANISOU 1385 CA   GLN   194 3961      2626    2110    493   -20  5 2
ATOM   1386 C    GLN   194 7.763   26.236  61.141  1.000 27 .79
ANISOU 1386 C    GLN   194 4886      2757    2916    823   25 - 2 62
ATOM   1387 O    GLN   194 8.424   27.258  60.983  1.000 30 .03
ANISOU 1387 O    GLN   194 4727      3168    3516    368  -259  -9 1 0
ATOM   1388 CB   GLN   194 9.086   24.170  60.950  1.000 23 .97
ANISOU 1388 CB   GLN   194 3952      3133    2021    846   483  3 5 2
ATOM   1389 CG   GLN   194 9.398   22.835  60.314  1.000 21 .94
ANISOU 1389 CG   GLN   194 2740      3238    2358    683  -182  - 1 0
ATOM   1390 CD   GLN   194 10.546  22.148  61.052  1.000 20 .51
ANISOU 1390 CD   GLN   194 2450      3433    1911    509  -321  -4 2 9
ATOM   1391 OE1  GLN   194 11.707  22.142  60.627  1.000 20 .80
ANISOU 1391 OE1  GLN   194 2245      2996    2662    -171  -382  -6 8 1
ATOM   1392 NE2  GLN   194 10.223  21.585  62.197  1.000 24 .91
ANISOU 1392 NE2  GLN   194 2539      3902    3023    210  -365 7 60
ATOM   1393 N    THR   195 6.817   26.035  62.030  1.000 32 .47
ANISOU 1393 N    THR   195 5716      2729    3891    1095  1056 - 6 16
ATOM   1394 CA   THR   195 6.588   26.708  63.282  1.000 35 .83
ANISOU 1394 CA   THR   195 6329      3539    3748    1011  999  - 7 2 2
ATOM   1395 CB   THR   195 5.263   27.492  63.357  1.000 37 .96
ANISOU 1395 CB   THR   195 5756      4304    4365    647   2095 -1151
ATOM   1396 OG1  THR   195 4.191   26.576  63.604  1.000 48 .36
ANISOU 1396 OG1  THR   195 6874      6076    5423    -806  2581 -1842
ATOM   1397 CG2  THR   195 4.958   28.175  62.033  1.000 44 .54
ANISOU 1397 CG2  THR   195 2944      7471    6510    -872  -963 6 21
ATOM   1398 C    THR   195 6.590   25.684  64.429  1.000 48 .86
ANISOU 1398 C    THR   195 10133     4924    3508    -321  -1356  - 2 21
ATOM   1399 O    THR   195 6.122   24.544  64.293  1.000 64 .12
ANISOU 1399 O    THR   195 13267     4150    6945    -264  -4541 1682
ATOM   1400 N    PHE   201 12.035  21.374  72.205  1.000 71 .12
ANISOU 1400 N    PHE   201 13961     9034    4028    -5932 -1658  -1741
ATOM   1401 CA   PHE   201 11.775  20.053  71.629  1.000 49 .44
ANISOU 1401 CA   PHE   201 7918      7543    3326    -3128 1317  -1488
ATOM   1402 CB   PHE   201 10.469  19.464  72.181  1.000 47 .85
ANISOU 1402 CB   PHE   201 7119      6892    4168    -1869 1937  -1899
ATOM   1403 CG   PHE   201 10.130  18.113  71.545  1.000 46 .41
ANISOU 1403 CG   PHE   201 6643      6596    4396    -2038 1879  -1497
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ATOM    1404 CD1 PHE   201 10.738  16.954  71.991 1.000 50.03
ANISOU  1404 CD1 PHE   201 7982    6634    4393   -2326 1092 -991
ATOM    1405 CD2 PHE   201 9.220   18.001  70.513 1.000 42.63
ANISOU  1405 CD2 PHE   201 5458    6427    4313   -1097 2449 -2268
ATOM    1406 CE1 PHE   201 10.434  15.739  71.417 1.000 49.95
ANISOU  1406 CE1 PHE   201 8275    6464    4240   -2047 227  -716
ATOM    1407 CE2 PHE   201 8.901   16.783  69.934 1.000 41.38
ANISOU  1407 CE2 PHE   201 6016    5946    3762   -578  2006 -1844
ATOM    1408 CZ  PHE   201 9.515   15.636  70.392 1.000 44.74
ANISOU  1408 CZ  PHE   201 7075    6261    3663   -1063 1020 -975
ATOM    1409 C   PHE   201 11.722  20.110  70.107 1.000 42.42
ANISOU  1409 C   PHE   201 6324    6442    3351   -1964 717  -1441
ATOM    1410 O   PHE   201 11.007  20.941  69.536 1.000 47.79
ANISOU  1410 O   PHE   201 9668    4400    4090   -762  691  -2416
ATOM    1411 N   VAL   202 12.477  19.232  69.449 1.000 34.04
ANISOU  1411 N   VAL   202 4525    5852    2558   -1948 7    -425
ATOM    1412 CA  VAL   202 12.535  19.245  67.993 1.000 25.09
ANISOU  1412 CA  VAL   202 3221    3752    2558   -1041 -182 9 9
ATOM    1413 CB  VAL   202 13.988  19.286  67.489 1.000 22.88
ANISOU  1413 CB  VAL   202 2832    3430    2432   -577  -691 -198
ATOM    1414 CG1 VAL   202 14.053  19.387  65.965 1.000 26.02
ANISOU  1414 CG1 VAL   202 3821    3594    2470   -958  35   -277
ATOM    1415 CG2 VAL   202 14.771  20.443  68.078 1.000 24.69
ANISOU  1415 CG2 VAL   202 3043    3473    2867   -786  -410 -320
ATOM    1416 C   VAL   202 11.798  18.035  67.421 1.000 20.69
ANISOU  1416 C   VAL   202 3027    2810    2023   -648  58   615
ATOM    1417 O   VAL   202 12.288  16.914  67.581 1.000 26.08
ANISOU  1417 O   VAL   202 3294    3219    3396   -136  452  884
ATOM    1418 N   SER   203 10.662  18.234  66.766 1.000 20.21
ANISOU  1418 N   SER   203 3100    2794    1787   -414  25   -152
ATOM    1419 CA  SER   203 9.820   17.192  66.218 1.000 20.37
ANISOU  1419 CA  SER   203 3149    2709    1884   -355  129  -256
ATOM    1420 CB  SER   203 8.437   17.779  65.896 1.000 24.72
ANISOU  1420 CB  SER   203 2726    4106    2558   -178  369  -1015
ATOM    1421 OG  SER   203 7.841   18.239  67.097 1.000 31.80
ANISOU  1421 OG  SER   203 3328    5782    2974   -457  1175 -1104
ATOM    1422 C   SER   203 10.367  16.524  64.958 1.000 19.13
ANISOU  1422 C   SER   203 2580    2647    2040   -339  170  -244
ATOM    1423 O   SER   203 10.279  15.302  64.832 1.000 17.01
ANISOU  1423 O   SER   203 2311    2625    1527   -414  206  -18
ATOM    1424 N   LEU   204 10.902  17.259  63.998 1.000 16.16
ANISOU  1424 N   LEU   204 2142    1976    2024   71 77 -292
ATOM    1425 CA  LEU   204 11.403  16.679  62.740 1.000 14.07
ANISOU  1425 CA  LEU   204 1670    1626    2049   -22   -24  -283
ATOM    1426 CB  LEU   204 11.269  17.704  61.618 1.000 13.80
ANISOU  1426 CB  LEU   204 1549    1763    1931   -249  -340 -277
ATOM    1427 CG  LEU   204 11.647  17.272  60.212 1.000 14.13
ANISOU  1427 CG  LEU   204 1726    1722    1919   -253  -482 -412
ATOM    1428 CD1 LEU   204 10.770  16.134  59.680 1.000 18.76
ANISOU  1428 CD1 LEU   204 2579    2895    1654   -1297 -927 -106
ATOM    1429 CD2 LEU   204 11.609  18.478  59.255 1.000 16.20
ANISOU  1429 CD2 LEU   204 1987    2095    2074   65 75 -123
ATOM    1430 C   LEU   204 12.832  16.140  62.885 1.000 14.81
ANISOU  1430 C   LEU   204 1734    1748    2144   9    -199 -250
ATOM    1431 O   LEU   204 13.699  16.853  63.397 1.000 15.52
ANISOU  1431 O   LEU   204 1833    1789    2274   -59   -435 -42
ATOM    1432 N   GLN   205 13.065  14.900  62.469 1.000 14.42
ANISOU  1432 N   GLN   205 1847    1804    1827   189  -120 -153
ATOM    1433 CA  GLN   205 14.288  14.143  62.574 1.000 12.76
ANISOU  1433 CA  GLN   205 1777    1655    1419   43 -347 -113
ATOM    1434 C   GLN   205 14.622  13.434  61.260 1.000 11.12
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ANISOU 1434 C    GLN 205 1412   1474   1338   49 -468  - 2 1
ATOM   1435 O    GLN 205 13.707 12.927 60.606 1.000 13.97
ANISOU 1435 O    GLN 205 1622   2235   1449  -293 -449 -147
ATOM   1436 CB   GLN 205 14.164 13.062 63.662 1.000 15.57
ANISOU 1436 CB   GLN 205 2421   1925   1568   341  151  8 3
ATOM   1437 CG   GLN 205 13.863 13.635 65.032 1.000 18.58
ANISOU 1437 CG   GLN 205 3321   2286   1451   689 -129 8 2
ATOM   1438 CD   GLN 205 15.086 14.243 65.680 1.000 24.33
ANISOU 1438 CD   GLN 205 3687   3465   2091   520 -499 -570
ATOM   1439 OE1  GLN 205 16.206 13.717 65.549 1.000 29.12
ANISOU 1439 OE1  GLN 205 3350   3464   4251   14 -270  -1800
ATOM   1440 NE2  GLN 205 14.840 15.356 66.378 1.000 23.01
ANISOU 1440 NE2  GLN 205 3055   2465   3225   335 -592 -140
ATOM   1441 N    ALA 206 15.893 13.401 60.893 1.000 12.63
ANISOU 1441 N    ALA 206 1523   1770   1506  -251 -234 - 6
ATOM   1442 CA   ALA 206 16.335 12.649 59.731 1.000 13.77
ANISOU 1442 CA   ALA 206 1392   2099   1742  -522  -72  -295
ATOM   1443 CB   ALA 206 16.693 13.519 58.528 1.000 16.34
ANISOU 1443 CB   ALA 206 2034   2494   1682  -603  123  -277
ATOM   1444 C    ALA 206 17.567 11.813 60.046 1.000 15.92
ANISOU 1444 C    ALA 206 1489   2331   2230  -290  179  -341
ATOM   1445 O    ALA 206 18.368 12.182 60.908 1.000 15.86
ANISOU 1445 O    ALA 206 1877   1772   2377   150 -356 3 0
ATOM   1446 N    GLU 207 17.707 10.712 59.305 1.000 16.98
ANISOU 1446 N    GLU 207 1981   2086   2383  -335  348  -186
ATOM   1447 CA   GLU 207 18.938 9.942  59.364 1.000 20.58
ANISOU 1447 CA   GLU 207 2198   1938   3684  -164  490  - 1 0
ATOM   1448 C    GLU 207 20.082 10.688 58.681 1.000 18.75
ANISOU 1448 C    GLU 207 1828   2037   3260   272  185  5 5 8
ATOM   1449 O    GLU 207 19.948 10.953 57.503 1.000 18.23
ANISOU 1449 O    GLU 207 1746   2145   3034   52 8  - 4 5
ATOM   1450 CB   GLU 207 18.665 8.612  58.676 1.000 25.81
ANISOU 1450 CB   GLU 207 3289   1794   4724  -19   83  -135
ATOM   1451 CG   GLU 207 19.879 7.737  58.429 1.000 30.08
ANISOU 1451 CG   GLU 207 4102   2221   5105   907 -948 -546
ATOM   1452 CD   GLU 207 19.429 6.356  57.959 1.000 29.93
ANISOU 1452 CD   GLU 207 5549   2024   3798   1179 -2099 -123
ATOM   1453 OE1  GLU 207 19.491 5.471  58.839 1.000 35.14
ANISOU 1453 OE1  GLU 207 5782   2692   4879   938 -931 8 8 5
ATOM   1454 OE2  GLU 207 19.037 6.251  56.762 1.000 38.62
ANISOU 1454 OE2  GLU 207 4955   5608   4109   135 -2494 - 3 6 6
ATOM   1455 N    VAL 208 21.146 10.997 59.414 1.000 16.97
ANISOU 1455 N    VAL 208 1926   1974   2549   120  337  8 0 7
ATOM   1456 CA   VAL 208 22.376 11.593 58.902 1.000 17.77
ANISOU 1456 CA   VAL 208 1894   2109   2748   93 500 4 1 1
ATOM   1457 CB   VAL 208 22.455 13.111 59.155 1.000 16.89
ANISOU 1457 CB   VAL 208 2774   2148   1494  -372 -149 569
ATOM   1458 CG1  VAL 208 23.652 13.688 58.409 1.000 20.76
ANISOU 1458 CG1  VAL 208 3214   2150   2526  -423  647  1 4 8
ATOM   1459 CG2  VAL 208 21.172 13.815 58.720 1.000 16.36
ANISOU 1459 CG2  VAL 208 3146   1640   1431   25 98 353
ATOM   1460 C    VAL 208 23.585 10.877 59.507 1.000 20.29
ANISOU 1460 C    VAL 208 1936   2555   3217   11 -58 1 3 2
ATOM   1461 O    VAL 208 23.726 10.829 60.741 1.000 20.74
ANISOU 1461 O    VAL 208 2436   2256   3187   460  206  5 4 4
ATOM   1462 N    GLY 209 24.457 10.295 58.672 1.000 18.94
ANISOU 1462 N    GLY 209 1764   2445   2989   211 -494 1 5
ATOM   1463 CA   GLY 209 25.558 9.508  59.194 1.000 24.01
ANISOU 1463 CA   GLY 209 2171   3040   3910   549 -396 7 0 9
ATOM   1464 C    GLY 209 25.123 8.364  60.082 1.000 25.00
ANISOU 1464 C    GLY 209 2874   3156   3470   1406  772  6 4 9
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ATOM    1465 O    GLY 209 25.850   7.934  60.991 1.000 35.98
ANISOU  1465 O    GLY 209 4448    3946    5279   1425  -426 1769
ATOM    1466 N    GLY 210 23.951   7.786  59.869 1.000 25.89
ANISOU  1466 N    GLY 210 3802    2756    3278   523    899  749
ATOM    1467 CA   GLY 210 23.477   6.678  60.671 1.000 26.43
ANISOU  1467 CA   GLY 210 4479    2136    3427   1228   742  912
ATOM    1468 C    GLY 210 22.885   7.025  62.016 1.000 28.45
ANISOU  1468 C    GLY 210 5472    2099    3237   831   1029 1175
ATOM    1469 O    GLY 210 22.634   6.098  62.789 1.000 40.26
ANISOU  1469 O    GLY 210 7322    2719    5256   1881  2759 2360
ATOM    1470 N    ALA 211 22.651   8.281  62.338 1.000 25.78
ANISOU  1470 N    ALA 211 4671    2359    2763   1370   724 1197
ATOM    1471 CA   ALA 211 22.048   8.671  63.613 1.000 23.74
ANISOU  1471 CA   ALA 211 2966    3156    2896   727    339  663
ATOM    1472 CB   ALA 211 23.093   9.333  64.496 1.000 29.57
ANISOU  1472 CB   ALA 211 2957    4372    3906   834    -96   69
ATOM    1473 C    ALA 211 20.900   9.626  63.360 1.000 21.19
ANISOU  1473 C    ALA 211 3090    2611    2350   484    178  741
ATOM    1474 O    ALA 211 20.936  10.381  62.399 1.000 23.91
ANISOU  1474 O    ALA 211 3771    2659    2653   -30    -66  930
ATOM    1475 N    PHE 212 19.889   9.629  64.204 1.000 19.88
ANISOU  1475 N    PHE 212 2603    2577    2375   398   -128  374
ATOM    1476 CA   PHE 212 18.814  10.613  64.130 1.000 19.13
ANISOU  1476 CA   PHE 212 2581    2257    2432   284   -565  317
ATOM    1477 C    PHE 212 19.320  12.006  64.489 1.000 20.00
ANISOU  1477 C    PHE 212 3004    2480    2115   133   -640   68
ATOM    1478 O    PHE 212 19.893  12.230  65.569 1.000 21.10
ANISOU  1478 O    PHE 212 2497    3558    1964   -391  -406  222
ATOM    1479 CB   PHE 212 17.688  10.290  65.096 1.000 21.37
ANISOU  1479 CB   PHE 212 2553    2616    2952   293   -197 -184
ATOM    1480 CG   PHE 212 17.010   8.950  64.912 1.000 23.45
ANISOU  1480 CG   PHE 212 2161    3496    3253   -376  -282 -558
ATOM    1481 CD1  PHE 212 16.369   8.377  65.990 1.000 23.33
ANISOU  1481 CD1  PHE 212 2545    3115    3206   -382  -350 -508
ATOM    1482 CD2  PHE 212 17.029   8.302  63.687 1.000 25.83
ANISOU  1482 CD2  PHE 212 2554    3962    3299   -622  -217 -787
ATOM    1483 CE1  PHE 212 15.730   7.149  65.872 1.000 28.13
ANISOU  1483 CE1  PHE 212 3784    3544    3362   -1119   96 -973
ATOM    1484 CE2  PHE 212 16.419   7.072  63.569 1.000 23.04
ANISOU  1484 CE2  PHE 212 2504    2960    3289   382   -232 -558
ATOM    1485 CZ   PHE 212 15.781   6.486  64.651 1.000 27.88
ANISOU  1485 CZ   PHE 212 3658    3977    2957   -1072 -501 -760
ATOM    1486 N    THR 213 19.076  12.936  63.578 1.000 18.30
ANISOU  1486 N    THR 213 2690    2083    2181   149   -583  -93
ATOM    1487 CA   THR 213 19.566  14.310  63.681 1.000 17.99
ANISOU  1487 CA   THR 213 1976    2139    2721   230   -686 -287
ATOM    1488 CB   THR 213 20.515  14.586  62.498 1.000 20.43
ANISOU  1488 CB   THR 213 1798    2280    3683   140   -119 -423
ATOM    1489 OG1  THR 213 21.638  13.695  62.629 1.000 25.33
ANISOU  1489 OG1  THR 213 2571    3378    3676   925    71  528
ATOM    1490 CG2  THR 213 21.087  15.985  62.485 1.000 21.11
ANISOU  1490 CG2  THR 213 1935    2667    3420   -310  -289 -747
ATOM    1491 C    THR 213 18.391  15.277  63.641 1.000 15.53
ANISOU  1491 C    THR 213 1732    2135    2032   111   -557 -167
ATOM    1492 O    THR 213 17.533  15.195  62.761 1.000 16.11
ANISOU  1492 O    THR 213 1742    2197    2180   -327  -669   56
ATOM    1493 N    ASP 214 18.362  16.199  64.590 1.000 15.60
ANISOU  1493 N    ASP 214 2025    2046    1857   64   -405    2
ATOM    1494 CA   ASP 214 17.380  17.256  64.672 1.000 15.59
ANISOU  1494 CA   ASP 214 2130    1722    2072   2   -1010 -242
ATOM    1495 CB   ASP 214 17.744  18.200  65.822 1.000 17.13
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ANISOU 1495 CB  ASP   214 2528   1893   2086   -226 -1022 -247
ATOM   1496 CG  ASP   214 17.612 17.672 67.219 1.000 20.21
ANISOU 1496 CG  ASP   214 3138   2495   2045   -451 -1276 -148
ATOM   1497 OD1 ASP   214 17.079 16.571 67.460 1.000 20.87
ANISOU 1497 OD1 ASP   214 2778   2632   2518   -247 -505 151
ATOM   1498 OD2 ASP   214 18.076 18.401 68.127 1.000 28.05
ANISOU 1498 OD2 ASP   214 5110   3118   2429   -257 -1997 -619
ATOM   1499 C   ASP   214 17.314 18.146 63.441 1.000 15.14
ANISOU 1499 C   ASP   214 2029   1822   1901   182  -574 -319
ATOM   1500 O   ASP   214 18.349 18.552 62.897 1.000 17.63
ANISOU 1500 O   ASP   214 1956   2032   2710   -214 -810 -15
ATOM   1501 N   LEU   215 16.105 18.493 63.027 1.000 14.69
ANISOU 1501 N   LEU   215 1936   1758   1887   38 -334 242
ATOM   1502 CA  LEU   215 15.915 19.504 61.979 1.000 13.35
ANISOU 1502 CA  LEU   215 1820   1753   1498   89 -22 59
ATOM   1503 CB  LEU   215 15.352 18.819 60.734 1.000 14.24
ANISOU 1503 CB  LEU   215 1735   2167   1506   -98  75 -3
ATOM   1504 CG  LEU   215 16.291 17.813 60.056 1.000 16.39
ANISOU 1504 CG  LEU   215 2031   2285   1911   -340 320 -424
ATOM   1505 CD1 LEU   215 15.517 16.999 59.031 1.000 22.61
ANISOU 1505 CD1 LEU   215 3139   2024   3427   -10 -801 -877
ATOM   1506 CD2 LEU   215 17.482 18.543 59.434 1.000 26.93
ANISOU 1506 CD2 LEU   215 1998   5409   2827   -1083 909 -542
ATOM   1507 C   LEU   215 15.002 20.622 62.500 1.000 14.65
ANISOU 1507 C   LEU   215 1770   1607   2190   86 -165 -95
ATOM   1508 O   LEU   215 13.822 20.662 62.151 1.000 19.45
ANISOU 1508 O   LEU   215 1748   2165   3476   116 -303 -203
ATOM   1509 N   PRO   216 15.552 21.523 63.314 1.000 15.99
ANISOU 1509 N   PRO   216 2390   1970   1715   -164 21 -175
ATOM   1510 CD  PRO   216 16.955 21.601 63.757 1.000 19.37
ANISOU 1510 CD  PRO   216 2900   2306   2155   -83 -790 -548
ATOM   1511 CA  PRO   216 14.760 22.620 63.846 1.000 18.68
ANISOU 1511 CA  PRO   216 3104   2017   1976   12 -74 -420
ATOM   1512 CB  PRO   216 15.649 23.227 64.949 1.000 18.63
ANISOU 1512 CB  PRO   216 3592   1517   1971   -120 -421 9
ATOM   1513 CG  PRO   216 17.030 22.847 64.581 1.000 22.35
ANISOU 1513 CG  PRO   216 3401   2426   2666   -419 -427 -783
ATOM   1514 C   PRO   216 14.461 23.700 62.819 1.000 18.50
ANISOU 1514 C   PRO   216 2921   2083   2026   58 -465 -473
ATOM   1515 O   PRO   216 15.024 23.854 61.731 1.000 19.82
ANISOU 1515 O   PRO   216 2752   2453   2325   -32 -375 19
ATOM   1516 N   TYR   217 13.487 24.536 63.194 1.000 20.05
ANISOU 1516 N   TYR   217 3213   1981   2422   90 -482 -718
ATOM   1517 CA  TYR   217 13.178 25.662 62.308 1.000 22.97
ANISOU 1517 CA  TYR   217 2849   2652   3227   211 -1467 -313
ATOM   1518 C   TYR   217 14.347 26.647 62.283 1.000 23.92
ANISOU 1518 C   TYR   217 4139   2131   2819   -337 -1776 -165
ATOM   1519 O   TYR   217 15.149 26.726 63.213 1.000 30.46
ANISOU 1519 O   TYR   217 4321   3440   3812   -1118 -2477 728
ATOM   1520 CB  TYR   217 11.891 26.314 62.768 1.000 32.68
ANISOU 1520 CB  TYR   217 3958   3294   5164   1148 -874 -783
ATOM   1521 CG  TYR   217 12.064 27.462 63.718 1.000 44.77
ANISOU 1521 CG  TYR   217 6829   4326   5854   895  38 -1870
ATOM   1522 CD1 TYR   217 11.853 28.763 63.285 1.000 54.26
ANISOU 1522 CD1 TYR   217 10311  3688   6615   -323 132 -1945
ATOM   1523 CD2 TYR   217 12.428 27.243 65.043 1.000 57.77
ANISOU 1523 CD2 TYR   217 10635  5155   6158   -1027 -1446 -1931
ATOM   1524 CE1 TYR   217 12.011 29.816 64.174 1.000 60.33
ANISOU 1524 CE1 TYR   217 11807  4345   6772   -1101 -132 -2259
ATOM   1525 CE2 TYR   217 12.585 28.296 65.926 1.000 64.51
ANISOU 1525 CE2 TYR   217 12481  5199   6832   -1936 -1520 -2074
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ATOM    1526 CZ   TYR   217 12.378  29.586 65.481 1.000 64.11
ANISOU  1526 CZ   TYR   217 12047   5183   7129  -1460 -817 -2160
ATOM    1527 OH   TYR   217 12.536  30.639 66.358 1.000 63.69
ANISOU  1527 OH   TYR   217 11840   5206   7153  -1832 -1191 -2064
ATOM    1528 N    ARG   218 14.418  27.374 61.188 1.000 24.08
ANISOU  1528 N    ARG   218 4482    1611   3055   507  -1471 -145
ATOM    1529 CA   ARG   218 15.335  28.465 60.948 1.000 30.71
ANISOU  1529 CA   ARG   218 5932    2490   3245  -504  -1565 382
ATOM    1530 CB   ARG   218 16.326  28.135 59.840 1.000 35.08
ANISOU  1530 CB   ARG   218 5969    2797   4562  -1397 -779 -348
ATOM    1531 CG   ARG   218 17.401  27.114 60.073 1.000 35.77
ANISOU  1531 CG   ARG   218 6009    3087   4497  -1107 -733 -773
ATOM    1532 CD   ARG   218 18.658  27.775 60.626 1.000 34.46
ANISOU  1532 CD   ARG   218 5680    3264   4152  -1242 -244 -619
ATOM    1533 NE   ARG   218 19.223  28.746 59.709 1.000 29.51
ANISOU  1533 NE   ARG   218 4707    2579   3926   78   81  -629
ATOM    1534 CZ   ARG   218 20.218  28.620 58.830 1.000 33.18
ANISOU  1534 CZ   ARG   218 5269    3166   4170   60   452 -1075
ATOM    1535 NH1  ARG   218 20.839  27.452 58.709 1.000 27.44
ANISOU  1535 NH1  ARG   218 4202    2881   3341  -503  -373 -1585
ATOM    1536 NH2  ARG   218 20.583  29.675 58.077 1.000 22.96
ANISOU  1536 NH2  ARG   218 2327    3579   2817   233  -1117 -872
ATOM    1537 C    ARG   218 14.513  29.655 60.464 1.000 31.05
ANISOU  1537 C    ARG   218 7353    1949   2496  -448  -1823 197
ATOM    1538 O    ARG   218 14.114  29.533 59.295 1.000 40.40
ANISOU  1538 O    ARG   218 9873    2241   3235   531  -3168 -627
ATOM    1539 N    PRO   219 14.246  30.747 61.157 1.000 30.01
ANISOU  1539 N    PRO   219 6290    2559   2555  -499  -1839 -284
ATOM    1540 CD   PRO   219 14.597  31.043 62.543 1.000 36.79
ANISOU  1540 CD   PRO   219 8147    2878   2954  -1848 -2548 -374
ATOM    1541 CA   PRO   219 13.464  31.841 60.549 1.000 26.34
ANISOU  1541 CA   PRO   219 4421    2564   3025  -573  -988 -340
ATOM    1542 CB   PRO   219 13.523  32.993 61.563 1.000 32.44
ANISOU  1542 CB   PRO   219 5361    2891   4073  -691  -417 -989
ATOM    1543 CG   PRO   219 13.947  32.372 62.825 1.000 38.75
ANISOU  1543 CG   PRO   219 7916    3462   3344  -1981 -958 -1235
ATOM    1544 C    PRO   219 14.005  32.329 59.220 1.000 23.64
ANISOU  1544 C    PRO   219 3472    2066   3443  -161  -1028 109
ATOM    1545 O    PRO   219 13.300  32.950 58.412 1.000 30.61
ANISOU  1545 O    PRO   219 4358    2934   4339  -347  -1712 876
ATOM    1546 N    ASP   220 15.269  32.087 58.906 1.000 25.98
ANISOU  1546 N    ASP   220 3611    1756   4506  -389  -644 -815
ATOM    1547 CA   ASP   220 15.847  32.660 57.705 1.000 27.96
ANISOU  1547 CA   ASP   220 3951    1603   5071  -364  30  -824
ATOM    1548 CB   ASP   220 17.212  33.238 58.155 1.000 29.61
ANISOU  1548 CB   ASP   220 3549    3142   4558  -176  -326 176
ATOM    1549 CG   ASP   220 18.091  32.158 58.780 1.000 32.09
ANISOU  1549 CG   ASP   220 3706    3527   4961   625  978  615
ATOM    1550 OD1  ASP   220 17.697  31.434 59.719 1.000 26.12
ANISOU  1550 OD1  ASP   220 3013    3522   3390  -158  -289 -97
ATOM    1551 OD2  ASP   220 19.241  32.088 58.281 1.000 29.09
ANISOU  1551 OD2  ASP   220 3714    3756   3581   304  677  -712
ATOM    1552 C    ASP   220 16.037  31.726 56.525 1.000 25.26
ANISOU  1552 C    ASP   220 2508    1291   5800   354  1110 -822
ATOM    1553 O    ASP   220 16.641  32.095 55.515 1.000 28.28
ANISOU  1553 O    ASP   220 4088    1665   4994  -855  298  -434
ATOM    1554 N    ALA   221 15.500  30.510 56.631 1.000 21.58
ANISOU  1554 N    ALA   221 2748    1770   3681  -288  178  -651
ATOM    1555 CA   ALA   221 15.840  29.484 55.658 1.000 19.81
ANISOU  1555 CA   ALA   221 2986    1452   3090  -342  -224 -315
ATOM    1556 CB   ALA   221 17.130  28.800 56.109 1.000 19.51
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ANISOU 1556 CB   ALA   221 2267    1497   3647   -648  45 -746
ATOM   1557 C    ALA   221 14.718  28.469 55.489 1.000 17.71
ANISOU 1557 C    ALA   221 2304    1912   2512   -251  -75 -309
ATOM   1558 O    ALA   221 13.866  28.356 56.380 1.000 20.97
ANISOU 1558 O    ALA   221 3596    2029   2344   -503  406 -284
ATOM   1559 N    VAL   222 14.728  27.756 54.378 1.000 14.22
ANISOU 1559 N    VAL   222 1560    1582   2262   -76   -92 -11
ATOM   1560 CA   VAL   222 13.823  26.617 54.160 1.000 14.89
ANISOU 1560 CA   VAL   222 1326    1608   2723   98  -216 -205
ATOM   1561 CB   VAL   222 13.079  26.779 52.830 1.000 17.28
ANISOU 1561 CB   VAL   222 1680    1754   3133   90  -657 -144
ATOM   1562 CG1  VAL   222 13.995  26.685 51.620 1.000 19.17
ANISOU 1562 CG1  VAL   222 1974    2625   2686   -446 -775 150
ATOM   1563 CG2  VAL   222 11.996  25.747 52.641 1.000 17.36
ANISOU 1563 CG2  VAL   222 2185    1879   2533   -254 -362 -385
ATOM   1564 C    VAL   222 14.653  25.339 54.263 1.000 12.66
ANISOU 1564 C    VAL   222 1136    1564   2112   -50  -225 -378
ATOM   1565 O    VAL   222 15.828  25.320 53.893 1.000 13.12
ANISOU 1565 O    VAL   222 1280    1825   1881   104  -13 -199
ATOM   1566 N    LEU   223 14.049  24.267 54.775 1.000 12.98
ANISOU 1566 N    LEU   223 1123    1538   2270   -163 -370 -417
ATOM   1567 CA   LEU   223 14.681  22.952 54.749 1.000 10.70
ANISOU 1567 CA   LEU   223 891 1704    1472   -26  -98 -7
ATOM   1568 CB   LEU   223 14.276  22.130 55.961 1.000 13.02
ANISOU 1568 CB   LEU   223 1387    1968   1593   -419 289 -108
ATOM   1569 CG   LEU   223 14.739  20.683 56.106 1.000 17.41
ANISOU 1569 CG   LEU   223 2434    2132   2050   -290 -476 566
ATOM   1570 CD1  LEU   223 16.247  20.614 56.204 1.000 17.20
ANISOU 1570 CD1  LEU   223 2576    1518   2441   26 -989 -249
ATOM   1571 CD2  LEU   223 13.983  20.076 57.282 1.000 33.63
ANISOU 1571 CD2  LEU   223 3981    4721   4077   -341 134 2949
ATOM   1572 C    LEU   223 14.362  22.211 53.456 1.000 10.02
ANISOU 1572 C    LEU   223 1000    1265   1543   58 -319 8 8
ATOM   1573 O    LEU   223 13.206  22.160 53.088 1.000 12.86
ANISOU 1573 O    LEU   223 949 1945    1992   -97  -174 -372
ATOM   1574 N    VAL   224 15.406  21.675 52.798 1.000 10.55
ANISOU 1574 N    VAL   224 978 1070    1962   -76  -418 -382
ATOM   1575 CA   VAL   224 15.227  20.932 51.553 1.000 11.98
ANISOU 1575 CA   VAL   224 1376    1288   1887   -249 -278 -372
ATOM   1576 CB   VAL   224 16.095  21.461 50.391 1.000 11.23
ANISOU 1576 CB   VAL   224 901 1541    1824   -279 -622 -99
ATOM   1577 CG1  VAL   224 15.833  20.690 49.102 1.000 13.16
ANISOU 1577 CG1  VAL   224 1899    1485   1615   -462 -516 8 4
ATOM   1578 CG2  VAL   224 15.837  22.941 50.156 1.000 13.86
ANISOU 1578 CG2  VAL   224 1480    1520   2266   -135 -354 -6 4
ATOM   1579 C    VAL   224 15.539  19.450 51.786 1.000 10.87
ANISOU 1579 C    VAL   224 953 1275    1901   -13  342 -484
ATOM   1580 O    VAL   224 16.646  19.148 52.201 1.000 12.57
ANISOU 1580 O    VAL   224 1283    1363   2132   -175 -154 -274
ATOM   1581 N    PHE   225 14.585  18.553 51.533 1.000 11.86
ANISOU 1581 N    PHE   225 1241    1128   2137   -15  -303 -6 1
ATOM   1582 CA   PHE   225 14.811  17.130 51.412 1.000 11.38
ANISOU 1582 CA   PHE   225 1260    1157   1909   -22  -67 -5 6
ATOM   1583 CB   PHE   225 13.707  16.280 52.044 1.000 11.34
ANISOU 1583 CB   PHE   225 1117    1176   2015   205  -213 335
ATOM   1584 CG   PHE   225 13.654  16.172 53.544 1.000 11.38
ANISOU 1584 CG   PHE   225 964 1369    1991   -251 -333 181
ATOM   1585 CD1  PHE   225 14.685  15.653 54.291 1.000 15.28
ANISOU 1585 CD1  PHE   225 1771    1777   2256   -98  -853 298
ATOM   1586 CD2  PHE   225 12.532  16.576 54.254 1.000 17.91
ANISOU 1586 CD2  PHE   225 1904    2748   2153   341  106 0
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ATOM    1587  CE1  PHE   225 14.619  15.535  55.661  1.000 17.46
ANISOU  1587  CE1  PHE   225 2449    1862    2321    -249  -795 6 6 6
ATOM    1588  CE2  PHE   225 12.447  16.474  55.612  1.000 19.35
ANISOU  1588  CE2  PHE   225 2563    2678    2111    121   129  - 1 1
ATOM    1589  CZ   PHE   225 13.499  15.945  56.341  1.000 18.20
ANISOU  1589  CZ   PHE   225 2952    1641    2324    -501  -470 3  6
ATOM    1590  C    PHE   225 14.907  16.774  49.927  1.000 12.03
ANISOU  1590  C    PHE   225 1480    1285    1804    130   -201 4  2
ATOM    1591  O    PHE   225 14.019  17.160  49.163  1.000 12.77
ANISOU  1591  O    PHE   225 1473    1466    1912    341   -118 3  8
ATOM    1592  N    CYS   226 15.940  16.032  49.521  1.000  9.62
ANISOU  1592  N    CYS   226 954 1403        1296    -204  -407 2  9
ATOM    1593  CA   CYS   226 15.917  15.400  48.197  1.000 10.80
ANISOU  1593  CA   CYS   226 1432    1204    1468    -258  -310 - 5 9
ATOM    1594  CB   CYS   226 17.337  15.029  47.744  1.000 12.02
ANISOU  1594  CB   CYS   226 1539    1362    1666    -357  16 -125
ATOM    1595  SG   CYS   226 18.426  16.490  47.554  1.000 13.74
ANISOU  1595  SG   CYS   226 1627    1400    2192    -341  18 139
ATOM    1596  C    CYS   226 14.998  14.178  48.256  1.000  9.86
ANISOU  1596  C    CYS   226 1190    1061    1495    -20   -293 - 1 6
ATOM    1597  O    CYS   226 15.015  13.431  49.252  1.000 11.17
ANISOU  1597  O    CYS   226 1181    1280    1781    -129  -435 272
ATOM    1598  N    GLY   227 14.217  13.963  47.205  1.000 10.17
ANISOU  1598  N    GLY   227 1428    1010    1427    -258  -271 - 3 5
ATOM    1599  CA   GLY   227 13.370  12.806  47.053  1.000  9.73
ANISOU  1599  CA   GLY   227 1231    860 1604        -178  -74 - 3 7
ATOM    1600  C    GLY   227 13.908  11.769  46.074  1.000  9.48
ANISOU  1600  C    GLY   227 1438    717 1445        16    -35   1 6 9
ATOM    1601  O    GLY   227 14.935  11.961  45.402  1.000  9.86
ANISOU  1601  O    GLY   227 1321    1137    1290    -104  -179 7  8
ATOM    1602  N    ALA   228 13.217  10.631  45.971  1.000  9.17
ANISOU  1602  N    ALA   228 1279    729 1477        109   -135   5 8
ATOM    1603  CA   ALA   228 13.650   9.529  45.108  1.000  9.41
ANISOU  1603  CA   ALA   228 1315    887 1371        9     -74   - 5 2
ATOM    1604  CB   ALA   228 12.727   8.296  45.256  1.000 10.50
ANISOU  1604  CB   ALA   228 2011    824 1155        -143  124 101
ATOM    1605  C    ALA   228 13.712   9.918  43.637  1.000  9.25
ANISOU  1605  C    ALA   228 1343    666 1507        -108  90 139
ATOM    1606  O    ALA   228 14.493   9.305  42.895  1.000  9.48
ANISOU  1606  O    ALA   228 1171    1026    1405    -88   -50  9 0
ATOM    1607  N    ILE   229 12.970  10.907  43.143  1.000 10.30
ANISOU  1607  N    ILE   229 1402    1004    1509    18 25 177
ATOM    1608  CA   ILE   229 13.074  11.311  41.727  1.000 10.87
ANISOU  1608  CA   ILE   229 1197    1446    1487    -2 -159   2 5 1
ATOM    1609  CB   ILE   229 11.802  12.078  41.295  1.000 11.52
ANISOU  1609  CB   ILE   229 1257    1473    1647    34 -57 3 6 2
ATOM    1610  CG2  ILE   229 11.997  12.852  39.999  1.000 11.30
ANISOU  1610  CG2  ILE   229 1655    1211    1426    83 -189   1 5 6
ATOM    1611  CG1  ILE   229 10.575  11.131  41.237  1.000 14.39
ANISOU  1611  CG1  ILE   229 1031    2034    2402    -40   210  3 1 1
ATOM    1612  CD1  ILE   229 10.676  10.093  40.138  1.000 19.20
ANISOU  1612  CD1  ILE   229 2085    1723    3489    -610  93 - 1 3 8
ATOM    1613  C    ILE   229 14.389  12.034  41.477  1.000 10.38
ANISOU  1613  C    ILE   229 1293    1405    1247    -62   -169 322
ATOM    1614  O    ILE   229 14.952  11.947  40.369  1.000 11.66
ANISOU  1614  O    ILE   229 1805    1257    1368    -13   145   3 2 8
ATOM    1615  N    ALA   230 14.965  12.692  42.490  1.000 10.66
ANISOU  1615  N    ALA   230 1476    1274    1300    -104  -151 3 5 6
ATOM    1616  CA   ALA   230 16.312  13.259  42.338  1.000 11.21
ANISOU  1616  CA   ALA   230 1473    975 1813        -57   -308  9 0
ATOM    1617  CB   ALA   230 16.681  14.148  43.509  1.000 10.58
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ANISOU 1617 CB  ALA  230 1350      1295    1375      62 -106  1 2 6
ATOM   1618 C   ALA  230 17.336  12.136  42.132  1.000 11.28
ANISOU 1618 C   ALA  230 1640      1037    1610       1  55  2 4 2
ATOM   1619 O   ALA  230 18.220  12.185  41.273  1.000 11.29
ANISOU 1619 O   ALA  230 1510      1240    1539    -189  -40  2 8 8
ATOM   1620 N   THR  231 17.173  11.097  42.946  1.000 10.55
ANISOU 1620 N   THR  231 1328       894    1787    -262  -70  2 1 4
ATOM   1621 CA  THR  231 18.064   9.939  42.819  1.000 11.98
ANISOU 1621 CA  THR  231 1929      1018    1605       0 -164  1 5 9
ATOM   1622 CB  THR  231 17.717   8.865  43.878  1.000 10.76
ANISOU 1622 CB  THR  231 1381      1070    1636     -86 -453  2 4 6
ATOM   1623 OG1 THR  231 17.658   9.437  45.198  1.000 11.82
ANISOU 1623 OG1 THR  231 1615      1236    1641      35 -115  2 7 7
ATOM   1624 CG2 THR  231 18.765   7.752  43.880  1.000 12.57
ANISOU 1624 CG2 THR  231 1621      1314    1840     160  -89  3 5 1
ATOM   1625 C   THR  231 17.958   9.352  41.415  1.000 12.52
ANISOU 1625 C   THR  231 1632      1500    1624    -145   42  1 1
ATOM   1626 O   THR  231 18.939   9.050  40.732  1.000 12.15
ANISOU 1626 O   THR  231 1636      1233    1747     -17   86  2 2 4
ATOM   1627 N   LEU  232 16.717   9.154  40.959  1.000 11.14
ANISOU 1627 N   LEU  232 1608      1005    1620      90  -68  1 4 1
ATOM   1628 CA  LEU  232 16.446   8.522  39.675  1.000 12.47
ANISOU 1628 CA  LEU  232 1880      1203    1657     109 -169  4 5
ATOM   1629 CB  LEU  232 14.950   8.214  39.552  1.000 12.81
ANISOU 1629 CB  LEU  232 1989      1225    1654     -78 -209  1 9
ATOM   1630 CG  LEU  232 14.452   7.464  38.314  1.000 14.85
ANISOU 1630 CG  LEU  232 2171      1753    1719      -5 -410   - 9 6
ATOM   1631 CD1 LEU  232 15.020   6.055  38.240  1.000 16.78
ANISOU 1631 CD1 LEU  232 2693      1749    1932      72 -431   - 4 8 7
ATOM   1632 CD2 LEU  232 12.914   7.411  38.291  1.000 15.70
ANISOU 1632 CD2 LEU  232 2180      1866    1920    -278 -589  4 9 4
ATOM   1633 C   LEU  232 16.964   9.354  38.511  1.000 11.58
ANISOU 1633 C   LEU  232 1452      1390    1559     309 -301  1 3 6
ATOM   1634 O   LEU  232 17.752   8.837  37.686  1.000 13.45
ANISOU 1634 O   LEU  232 1808      1436    1867     320  -17  3 0
ATOM   1635 N   VAL  233 16.565  10.617  38.414  1.000 10.95
ANISOU 1635 N   VAL  233 1428      1210    1522     -14 -210  0
ATOM   1636 CA  VAL  233 16.948  11.421  37.242  1.000 11.70
ANISOU 1636 CA  VAL  233 1703      1345    1397      97  5  1 3
ATOM   1637 CB  VAL  233 16.156  12.743  37.215  1.000 11.14
ANISOU 1637 CB  VAL  233 1672      1272    1287     -26  276  7 3
ATOM   1638 CG1 VAL  233 16.661  13.774  38.249  1.000 13.34
ANISOU 1638 CG1 VAL  233 1834      1562    1673    -205  653   - 3 6 8
ATOM   1639 CG2 VAL  233 16.106  13.412  35.827  1.000 14.66
ANISOU 1639 CG2 VAL  233 1992      1873    1704      -4  -45  5 8 6
ATOM   1640 C   VAL  233 18.459  11.586  37.132  1.000 13.41
ANISOU 1640 C   VAL  233 1712      1573    1811      91 151  1 2 5
ATOM   1641 O   VAL  233 19.012  11.627  36.021  1.000 13.45
ANISOU 1641 O   VAL  233 1844      1402    1866      46 192  4 3 8
ATOM   1642 N   THR  234 19.188  11.665  38.250  1.000 13.13
ANISOU 1642 N   THR  234 1457      1639    1893    -139  223  1 2 6
ATOM   1643 CA  THR  234 20.613  11.930  38.244  1.000 13.00
ANISOU 1643 CA  THR  234 1483      1600    1855    -188  428  1 4 3
ATOM   1644 CB  THR  234 21.069  12.726  39.465  1.000 12.46
ANISOU 1644 CB  THR  234 1300      1632    1803     -32  200  2 5 1
ATOM   1645 OG1 THR  234 20.825  11.941  40.639  1.000 13.71
ANISOU 1645 OG1 THR  234 1660      1662    1888     192  202  2 9 1
ATOM   1646 CG2 THR  234 20.301  14.027  39.643  1.000 11.37
ANISOU 1646 CG2 THR  234 1097      1565    1657    -153  -87  1 6 9
ATOM   1647 C   THR  234 21.424  10.643  38.178  1.000 14.44
ANISOU 1647 C   THR  234 1550      1823    2114       6  -73  - 5 3
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ATOM    1648 O    THR 234 22.659  10.710 38.233 1.000 15.81
ANISOU  1648 O    THR 234 1546    2169    2293    61  27  217
ATOM    1649 N    GLY 235 20.767   9.477 38.070 1.000 14.76
ANISOU  1649 N    GLY 235 1776    1576    2254    77  81  410
ATOM    1650 CA   GLY 235 21.530   8.249 37.994 1.000 16.69
ANISOU  1650 CA   GLY 235 2053    1803    2486   304   35 189
ATOM    1651 C    GLY 235 22.243   7.862 39.275 1.000 16.83
ANISOU  1651 C    GLY 235 1854    2031    2512   765  244 193
ATOM    1652 O    GLY 235 23.305   7.237 39.194 1.000 19.67
ANISOU  1652 O    GLY 235 2074    2172    3225  1035  383 372
ATOM    1653 N    GLY 236 21.665   8.227 40.425 1.000 14.46
ANISOU  1653 N    GLY 236 1732    1327    2433   154  198 7 5
ATOM    1654 CA   GLY 236 22.187   7.768 41.692 1.000 15.73
ANISOU  1654 CA   GLY 236 2060    1381    2536    41 186 312
ATOM    1655 C    GLY 236 23.166   8.691 42.388 1.000 14.76
ANISOU  1655 C    GLY 236 1931    1332    2346   252   73 288
ATOM    1656 O    GLY 236 23.778   8.244 43.373 1.000 18.32
ANISOU  1656 O    GLY 236 1983    2197    2782   106 -105 844
ATOM    1657 N    GLN 237 23.318   9.938 41.953 1.000 13.99
ANISOU  1657 N    GLN 237 1831    1349    2137   158  165 170
ATOM    1658 CA   GLN 237 24.209  10.956 42.485 1.000 13.13
ANISOU  1658 CA   GLN 237 1474    1304    2210   367  -31 276
ATOM    1659 CB   GLN 237 24.629  11.948 41.383 1.000 13.38
ANISOU  1659 CB   GLN 237 1367    1566    2151    99  72 159
ATOM    1660 CG   GLN 237 25.390  11.335 40.219 1.000 14.74
ANISOU  1660 CG   GLN 237 1404    1529    2666   518  410 333
ATOM    1661 CD   GLN 237 25.816  12.428 39.257 1.000 17.22
ANISOU  1661 CD   GLN 237 2039    2018    2486   -64  426 360
ATOM    1662 OE1  GLN 237 26.754  13.208 39.522 1.000 20.60
ANISOU  1662 OE1  GLN 237 1566    2334    3928   -10  -29 965
ATOM    1663 NE2  GLN 237 25.116  12.470 38.127 1.000 17.47
ANISOU  1663 NE2  GLN 237 2014    2093    2533   208  438 408
ATOM    1664 C    GLN 237 23.627  11.739 43.663 1.000 12.90
ANISOU  1664 C    GLN 237 1474    1324    2104    72 -10 255
ATOM    1665 O    GLN 237 24.332  12.549 44.282 1.000 15.90
ANISOU  1665 O    GLN 237 1739    1888    2413  -291  74 - 84
ATOM    1666 N    VAL 238 22.365  11.481 44.013 1.000 12.13
ANISOU  1666 N    VAL 238 1372     962 2276    212  -33 200
ATOM    1667 CA   VAL 238 21.664  12.182 45.082 1.000 11.91
ANISOU  1667 CA   VAL 238 1169    1436    1920  -121 -276 - 19
ATOM    1668 CB   VAL 238 20.622  13.158 44.510 1.000 12.00
ANISOU  1668 CB   VAL 238 1024    1179    2357    -6 199 - 31
ATOM    1669 CG1  VAL 238 19.978  13.999 45.601 1.000 13.07
ANISOU  1669 CG1  VAL 238 1530    1668    1767    63 -232 - 222
ATOM    1670 CG2  VAL 238 21.207  14.088 43.463 1.000 14.00
ANISOU  1670 CG2  VAL 238 1795    1470    2053   -40   -2 181
ATOM    1671 C    VAL 238 20.990  11.156 46.000 1.000 13.62
ANISOU  1671 C    VAL 238 1707    1415    2054  -103  -40 - 22
ATOM    1672 O    VAL 238 20.252  10.288 45.492 1.000 12.64
ANISOU  1672 O    VAL 238 1702     977 2123     60 -318 257
ATOM    1673 N    LYS 239 21.247  11.246 47.300 1.000 11.99
ANISOU  1673 N    LYS 239 1075    1404    2076   127 -101 7 4
ATOM    1674 CA   LYS 239 20.568  10.444 48.322 1.000 12.77
ANISOU  1674 CA   LYS 239 1224    1541    2088   -12 -124 8 6
ATOM    1675 CB   LYS 239 21.382  10.463 49.622 1.000 12.23
ANISOU  1675 CB   LYS 239 1333    1155    2158   183 -234 - 28
ATOM    1676 CG   LYS 239 20.953   9.626 50.793 1.000 13.85
ANISOU  1676 CG   LYS 239 1643    1689    1931   187  -52 - 89
ATOM    1677 CD   LYS 239 21.927   9.579 51.957 1.000 20.13
ANISOU  1677 CD   LYS 239 2893    1795    2961    10 -1185 588
ATOM    1678 CE   LYS 239 21.364   8.745 53.098 1.000 24.73
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ANISOU 1678 CE   LYS   239 4065    2250    3080     -348  -1465 1064
ATOM   1679 NZ   LYS   239 22.019  8.841   54.420   1.000 32.28
ANISOU 1679 NZ   LYS   239 5658    4315    2293     1610  -930 -304
ATOM   1680 C    LYS   239 19.169  10.949  48.661   1.000 11.59
ANISOU 1680 C    LYS   239 1207    1332    1866     -35   -82  6 4
ATOM   1681 O    LYS   239 18.976  12.191  48.708   1.000 12.32
ANISOU 1681 O    LYS   239 1638    1294    1749     -2  -25  236
ATOM   1682 N    ALA   240 18.222  10.047  48.863   1.000 10.65
ANISOU 1682 N    ALA   240 1248    1266    1534     -52  -185 - 88
ATOM   1683 CA   ALA   240 16.884  10.368  49.354   1.000 10.21
ANISOU 1683 CA   ALA   240 1292    1057    1531     -195  -37  -109
ATOM   1684 CB   ALA   240 15.784  9.782   48.466   1.000 13.46
ANISOU 1684 CB   ALA   240 1195    2378    1543     -232  20 -403
ATOM   1685 C    ALA   240 16.784  9.881   50.807   1.000 10.97
ANISOU 1685 C    ALA   240 1308    1249    1611     -127  -142 4 9
ATOM   1686 O    ALA   240 16.595  8.664   51.059   1.000 13.02
ANISOU 1686 O    ALA   240 2136    1242    1568     -243  28 - 7
ATOM   1687 N    PRO   241 16.967  10.783  51.782   1.000 11.13
ANISOU 1687 N    PRO   241 1723    1041    1466     160   -49  138
ATOM   1688 CD   PRO   241 17.172  12.237  51.654   1.000 11.17
ANISOU 1688 CD   PRO   241 1419    1204    1618     -180  -128 7 6
ATOM   1689 CA   PRO   241 17.043  10.340  53.166   1.000 11.96
ANISOU 1689 CA   PRO   241 1597    1447    1499     -172  -32  193
ATOM   1690 CB   PRO   241 17.712  11.545  53.891   1.000 14.25
ANISOU 1690 CB   PRO   241 1875    1837    1701     -531  -383 242
ATOM   1691 CG   PRO   241 17.286  12.724  53.069   1.000 13.61
ANISOU 1691 CG   PRO   241 2015    1446    1709     -596  -465 - 22
ATOM   1692 C    PRO   241 15.708  10.072  53.861   1.000 12.35
ANISOU 1692 C    PRO   241 1417    1610    1665     -175  -187 418
ATOM   1693 O    PRO   241 14.759  10.829  53.655   1.000 12.28
ANISOU 1693 O    PRO   241 1359    1582    1723     -232  -468 8 1
ATOM   1694 N    ARG   242 15.700  9.033   54.711   1.000 12.75
ANISOU 1694 N    ARG   242 1775    1407    1664     -170  76 250
ATOM   1695 CA   ARG   242 14.563  8.804   55.576   1.000 10.76
ANISOU 1695 CA   ARG   242 1292    1417    1380     -207  -281 211
ATOM   1696 CB   ARG   242 14.614  7.405   56.223   1.000 15.02
ANISOU 1696 CB   ARG   242 2419    1368    1918     -357  117  294
ATOM   1697 CG   ARG   242 14.115  6.342   55.230   1.000 17.85
ANISOU 1697 CG   ARG   242 3373    1274    2135     9   -560  251
ATOM   1698 CD   ARG   242 14.254  4.934   55.763   1.000 19.42
ANISOU 1698 CD   ARG   242 3148    1111    3120     506   503  116
ATOM   1699 NE   ARG   242 15.667  4.552   55.849   1.000 20.71
ANISOU 1699 NE   ARG   242 3225    2107    2538     938   638  212
ATOM   1700 CZ   ARG   242 16.107  3.444   56.416   1.000 23.22
ANISOU 1700 CZ   ARG   242 3198    2206    3417     307   -544 589
ATOM   1701 NH1  ARG   242 15.285  2.567   56.980   1.000 24.46
ANISOU 1701 NH1  ARG   242 4097    2112    3083     307   387  195
ATOM   1702 NH2  ARG   242 17.416  3.184   56.438   1.000 25.41
ANISOU 1702 NH2  ARG   242 3402    2332    3921     819   -267 403
ATOM   1703 C    ARG   242 14.477  9.834   56.704   1.000 11.95
ANISOU 1703 C    ARG   242 1571    1463    1506     -248  -214 107
ATOM   1704 O    ARG   242 15.469  10.377  57.213   1.000 13.65
ANISOU 1704 O    ARG   242 1708    1439    2040     -322  -401 - 38
ATOM   1705 N    HIS   243 13.252  10.085  57.118   1.000 11.60
ANISOU 1705 N    HIS   243 1657    1410    1342     -311  -206 5
ATOM   1706 CA   HIS   243 12.942  11.056  58.158   1.000 11.49
ANISOU 1706 CA   HIS   243 1855    1571    938 -306  -183  140
ATOM   1707 CB   HIS   243 12.968  12.462  57.546   1.000 11.22
ANISOU 1707 CB   HIS   243 1432    1379    1453     -231  -221 3 9
ATOM   1708 CG   HIS   243 12.133  12.694  56.341   1.000 11.80
ANISOU 1708 CG   HIS   243 1937    1171    1378     -31   -268 7 9
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ATOM   1709 CD2 HIS   243 10.885  13.235  56.181  1.000 11.15
ANISOU 1709 CD2 HIS   243 1990    1106    1142    35 -344   1 4 1
ATOM   1710 ND1 HIS   243 12.538  12.345  55.086  1.000 12.29
ANISOU 1710 ND1 HIS   243 1670    1606    1395    -394  -91   8
ATOM   1711 CE1 HIS   243 11.599  12.653  54.209  1.000 12.59
ANISOU 1711 CE1 HIS   243 1686    1740    1357    -522 -202 - 2 5 3
ATOM   1712 NE2 HIS   243 10.585  13.204  54.841  1.000 10.77
ANISOU 1712 NE2 HIS   243 1612    1307    1172    -616 -268 - 3 6
ATOM   1713 C   HIS   243 11.605  10.737  58.812  1.000 12.49
ANISOU 1713 C   HIS   243 1869    1570    1308    -321  -53   7 3
ATOM   1714 O   HIS   243 10.807  9.949   58.271  1.000 12.26
ANISOU 1714 O   HIS   243 1756    1404    1497    -188 -115 4 7
ATOM   1715 N   HIS   244 11.352  11.319  59.983  1.000 12.16
ANISOU 1715 N   HIS   244 1464    1715    1442    -230 -112 - 3 2
ATOM   1716 CA  HIS   244 10.138  11.043  60.758  1.000 12.02
ANISOU 1716 CA  HIS   244 1606    1809    1152    -599 -167 - 2 4
ATOM   1717 CB  HIS   244 10.255  9.778   61.615  1.000 12.51
ANISOU 1717 CB  HIS   244 1655    1763    1334    -19   101  - 4 7
ATOM   1718 CG  HIS   244 11.270  9.810   62.698  1.000 15.04
ANISOU 1718 CG  HIS   244 2025    1723    1965    -178 -433 1 5 4
ATOM   1719 CD2 HIS   244 11.276  10.380  63.923  1.000 18.19
ANISOU 1719 CD2 HIS   244 2946    2339    1627    36 -732   2 9 7
ATOM   1720 ND1 HIS   244 12.504  9.203   62.662  1.000 19.30
ANISOU 1720 ND1 HIS   244 2303    2232    2800    229  -708 2 6 6
ATOM   1721 CE1 HIS   244 13.226  9.387   63.731  1.000 22.48
ANISOU 1721 CE1 HIS   244 2649    2734    3159    11 -1206 6 5 0
ATOM   1722 NE2 HIS   244 12.476  10.120  64.531  1.000 22.33
ANISOU 1722 NE2 HIS   244 3088    2895    2500    -272 -1236 3 8 4
ATOM   1723 C   HIS   244 9.780   12.246  61.613  1.000 13.47
ANISOU 1723 C   HIS   244 1897    1673    1549    -362  254   6 7
ATOM   1724 O   HIS   244 10.603  13.165  61.798  1.000 13.48
ANISOU 1724 O   HIS   244 1800    1726    1595    -283  139  - 1 6 1
ATOM   1725 N   VAL   245 8.551   12.245  62.130  1.000 15.26
ANISOU 1725 N   VAL   245 1852    1964    1983    -417  232  - 5 5
ATOM   1726 CA  VAL   245 8.090   13.352  62.970  1.000 17.31
ANISOU 1726 CA  VAL   245 2108    2442    2026    -125  476  - 1 6 1
ATOM   1727 CB  VAL   245 6.939   14.169  62.360  1.000 17.33
ANISOU 1727 CB  VAL   245 2094    2473    2019    -80   340  - 4 7 7
ATOM   1728 CG1 VAL   245 6.551   15.334  63.286  1.000 25.25
ANISOU 1728 CG1 VAL   245 2217    2966    4410    -137 1939 -1 2 4 8
ATOM   1729 CG2 VAL   245 7.252   14.713  60.966  1.000 21.49
ANISOU 1729 CG2 VAL   245 3070    2538    2556    -180  313   2 7 1
ATOM   1730 C   VAL   245 7.682   12.768  64.327  1.000 18.29
ANISOU 1730 C   VAL   245 2123    2689    2137    -443  508  - 7 1
ATOM   1731 O   VAL   245 6.765   11.945  64.429  1.000 18.62
ANISOU 1731 O   VAL   245 1810    2174    3089    -15   451   2 5 4
ATOM   1732 N   ALA   246 8.385   13.202  65.369  1.000 21.54
ANISOU 1732 N   ALA   246 2813    3045    2327    -591 -407 9 0 7
ATOM   1733 CA  ALA   246 8.133   12.701  66.719  1.000 25.10
ANISOU 1733 CA  ALA   246 4596    2562    2379    94 -225   9 9 7
ATOM   1734 CB  ALA   246 9.424   12.723  67.537  1.000 29.82
ANISOU 1734 CB  ALA   246 5381    3408    2540    402  -889 1 3 2 5
ATOM   1735 C   ALA   246 7.080   13.545  67.412  1.000 31.20
ANISOU 1735 C   ALA   246 5079    4143    2632    314   280   4 2 8
ATOM   1736 O   ALA   246 6.876   14.714  67.052  1.000 32.39
ANISOU 1736 O   ALA   246 4706    3748    3853    567  1247 - 6 6
ATOM   1737 N   ALA   247 6.429   12.973  68.413  1.000 37.30
ANISOU 1737 N   ALA   247 5548    5498    3126    92 640 8 3 5
ATOM   1738 CA  ALA   247 5.585   13.794  69.271  1.000 40.42
ANISOU 1738 CA  ALA   247 5434    6048    3878    15 1313  8 5 0
ATOM   1739 C   ALA   247 6.289   14.132  70.578  1.000 42.17
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ANISOU  1739 C    ALA   247 6495    5891    3636    -823   1720 341
ATOM    1740 O    ALA   247 7.048  13.338  71.136   1.000 41.63
ANISOU  1740 O    ALA   247 5811    6371    3637   -1631    804   425
ATOM    1741 CB   ALA   247 4.280  13.067  69.525   1.000 47.17
ANISOU  1741 CB   ALA   247 5186    9059    3676    -520    523  2683
ATOM    1742 N    SER   257 1.781  21.848  70.382   1.000 31.02
ANISOU  1742 N    SER   257 4109    5558    2119     137   -235  -810
ATOM    1743 CA   SER   257 1.214  21.932  69.052   1.000 27.01
ANISOU  1743 CA   SER   257 2792    5165    2304     109   -143  -707
ATOM    1744 CB   SER   257 0.039  22.914  68.992   1.000 28.16
ANISOU  1744 CB   SER   257 2655    4473    3572    -238    -90 -1071
ATOM    1745 OG   SER   257 0.491  24.251  69.074   1.000 51.32
ANISOU  1745 OG   SER   257 8516    4131    6853    -616  -2734  -807
ATOM    1746 C    SER   257 2.259  22.389  68.034   1.000 26.19
ANISOU  1746 C    SER   257 2537    5064    2350    -132   -413  -527
ATOM    1747 O    SER   257 3.286  22.988  68.352   1.000 31.47
ANISOU  1747 O    SER   257 2740    5886    3330    -435   -689  -639
ATOM    1748 N    ARG   258 2.022  22.123  66.763   1.000 26.04
ANISOU  1748 N    ARG   258 3257    4477    2161    -238   -441   -19
ATOM    1749 CA   ARG   258 2.982  22.541  65.747   1.000 25.81
ANISOU  1749 CA   ARG   258 2606    4735    2466      73   -338  -197
ATOM    1750 C    ARG   258 2.321  22.609  64.383   1.000 18.26
ANISOU  1750 C    ARG   258 2374    2541    2021      39    83  -854
ATOM    1751 O    ARG   258 1.288  21.967  64.131   1.000 19.23
ANISOU  1751 O    ARG   258 2600    2819    1882    -389    311  -420
ATOM    1752 CB   ARG   258 4.188  21.592  65.664   1.000 29.78
ANISOU  1752 CB   ARG   258 3403    5052    2861     695   -552   -57
ATOM    1753 CG   ARG   258 4.246  20.784  64.384   1.000 32.64
ANISOU  1753 CG   ARG   258 4358    4148    3896     146     97  -561
ATOM    1754 CD   ARG   258 5.325  19.746  64.499   1.000 30.38
ANISOU  1754 CD   ARG   258 3812    4423    3309     -57    341   -16
ATOM    1755 NE   ARG   258 6.433  19.909  63.581   1.000 29.43
ANISOU  1755 NE   ARG   258 3990    4604    2588     -22     70   542
ATOM    1756 CZ   ARG   258 6.453  19.389  62.359   1.000 25.02
ANISOU  1756 CZ   ARG   258 2540    3893    3074     304   -243  104
ATOM    1757 NH1  ARG   258 5.456  18.677  61.835   1.000 22.88
ANISOU  1757 NH1  ARG   258 2105    2607    3982     359    315   289
ATOM    1758 NH2  ARG   258 7.523  19.593  61.617   1.000 22.03
ANISOU  1758 NH2  ARG   258 2477    2775    3120    -430   -287  -964
ATOM    1759 N    THR   259 2.927  23.415  63.527   1.000 20.17
ANISOU  1759 N    THR   259 2010    3640    2013    -743     91 -1001
ATOM    1760 CA   THR   259 2.485  23.505  62.138   1.000 18.33
ANISOU  1760 CA   THR   259 1801    3043    2121    -533     43  -685
ATOM    1761 CB   THR   259 1.821  24.821  61.713   1.000 23.23
ANISOU  1761 CB   THR   259 2082    3169    3576    -384   -164  -580
ATOM    1762 OG1  THR   259 2.839  25.830  61.681   1.000 34.27
ANISOU  1762 OG1  THR   259 2181    2562    8277    -137   -996  -794
ATOM    1763 CG2  THR   259 0.738  25.198  62.704   1.000 25.49
ANISOU  1763 CG2  THR   259 4466    2233    2987     325    396  -948
ATOM    1764 C    THR   259 3.702  23.352  61.222   1.000 18.44
ANISOU  1764 C    THR   259 2035    2822    2150    -753    274  -583
ATOM    1765 O    THR   259 4.835  23.698  61.603   1.000 24.74
ANISOU  1765 O    THR   259 1961    5370    2069    -964    231  -714
ATOM    1766 N    SER   260 3.420  22.867  60.026   1.000 16.29
ANISOU  1766 N    SER   260 1971    2352    1864    -224      2   -75
ATOM    1767 CA   SER   260 4.447  22.832  58.989   1.000 17.43
ANISOU  1767 CA   SER   260 1783    2961    1879     321    -95   -72
ATOM    1768 CB   SER   260 5.224  21.514  58.956   1.000 20.17
ANISOU  1768 CB   SER   260 2306    3257    2100     762   -127  388
ATOM    1769 OG   SER   260 4.416  20.392  58.698   1.000 27.09
ANISOU  1769 OG   SER   260 3651    2803    3839     426    217  554
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ATOM    1770 C    SER  260 3.832   23.062  57.614  1.000 14.52
ANISOU  1770 C    SER  260 1463    2165    1889    83 -100  - 1
ATOM    1771 O    SER  260 2.686   22.681  57.402  1.000 15.92
ANISOU  1771 O    SER  260 1513    2489    2049    -93  -1 2 5 7
ATOM    1772 N    SER  261 4.617   23.660  56.742  1.000 13.45
ANISOU  1772 N    SER  261 1489    1832    1788    -190 -120 - 5 0 0
ATOM    1773 CA   SER  261 4.294   23.864  55.334  1.000 13.52
ANISOU  1773 CA   SER  261 1599    1726    1812    -204  30 - 3 1 5
ATOM    1774 C    SER  261 5.209   22.943  54.545  1.000 12.45
ANISOU  1774 C    SER  261 1332    1887    1513    -42  -240 - 1 6 1
ATOM    1775 O    SER  261 6.438   23.072  54.662  1.000 15.07
ANISOU  1775 O    SER  261 1344    1885    2497    -68  -331 - 3 4 3
ATOM    1776 CB   SER  261 4.446   25.330  54.943  1.000 17.76
ANISOU  1776 CB   SER  261 2718    1625    2404    -399  -485 - 3 1 8
ATOM    1777 OG   SER  261 4.428   25.554  53.570  1.000 27.54
ANISOU  1777 OG   SER  261 4342    3308    2814    -719  -821 9 5 5
ATOM    1778 N    VAL  262 4.623   22.045  53 782   1.000 10.90
ANISOU  1778 N    VAL  262 1215    1630    1299    41 -135  1 9
ATOM    1779 CA   VAL  262 5.393   21.031  53.026  1.000 11.61
ANISOU  1779 CA   VAL  262 1334    1634    1442    156  -103 1 7
ATOM    1780 CB   VAL  262 5.026   19.639  53.558  1.000 11.87
ANISOU  1780 CB   VAL  262 1262    1636    1614    9  -187 - 7 4
ATOM    1781 CG1  VAL  262 5.778   18.577  52.779  1.000 13.12
ANISOU  1781 CG1  VAL  262 1462    1527    1997    -2 185 5 1
ATOM    1782 CG2  VAL  262 5.262   19.564  55.062  1.000 17.08
ANISOU  1782 CG2  VAL  262 3390    1494    1604    -374  -245 3 9
ATOM    1783 C    VAL  262 5.096   21.149  51.543  1.000 11.18
ANISOU  1783 C    VAL  262 1026    1790    1431    1  -111  - 1 3 8
ATOM    1784 O    VAL  262 3.939   20.969  51.127  1.000 12.76
ANISOU  1784 O    VAL  262 1064    2137    1648    -251  -84  - 2 7 1
ATOM    1785 N    PHE  263 6.090   21.438  50.714  1.000 9.50
ANISOU  1785 N    PHE  263 995 1297    1316    -6 -210  - 181
ATOM    1786 CA   PHE  263 5.933   21.637  49.288  1.000 9.61
ANISOU  1786 CA   PHE  263 1310    1017    1324    -6 -284  - 4 2
ATOM    1787 CB   PHE  263 6.486   23.002  48.848  1.000 10.94
ANISOU  1787 CB   PHE  263 1282    1055    1821    -50  -253 4
ATOM    1788 CG   PHE  263 6.150   23.399  47.418  1.000 10.35
ANISOU  1788 CG   PHE  263 779 1231    1921    -58  32 3 4 0
ATOM    1789 CD1  PHE  263 6.858   22.915  46.326  1.000 9.98
ANISOU  1789 CD1  PHE  263 766 1183    1841    -26  -101 2 4 0
ATOM    1790 CD2  PHE  263 5.106   24.277  47.148  1.000 11.95
ANISOU  1790 CD2  PHE  263 1229    1261    2052    245  -29  2 6 1
ATOM    1791 CE1  PHE  263 6.530   23.229  45.019  1.000 12.49
ANISOU  1791 CE1  PHE  263 1718    1173    1857    31 -370  1 3 6
ATOM    1792 CE2  PHE  263 4.769   24.601  45.836  1.000 13.12
ANISOU  1792 CE2  PHE  263 1451    1382    2151    43 -292  3 5 3
ATOM    1793 CZ   PHE  263 5.491   24.112  44.762  1.000 12.42
ANISOU  1793 CZ   PHE  263 1318    1453    1948    -138  -187 6 4 9
ATOM    1794 C    PHE  263 6.636   20.505  48.530  1.000 8.91
ANISOU  1794 C    PHE  263 1076    1085    1223    -39  -142 2 4
ATOM    1795 O    PHE  263 7.868   20.406  48.538  1.000 10.98
ANISOU  1795 O    PHE  263 1098    1233    1842    -120  -224 - 1 4 5
ATOM    1796 N    PHE  264 5.856   19.691  47.812  1.000 9.19
ANISOU  1796 N    PHE  264 1089    1266    1136    -86  -105 - 8 2
ATOM    1797 CA   PHE  264 6.386   18.602  46.991  1.000 9.64
ANISOU  1797 CA   PHE  264 1009    1238    1417    -56  -60 - 1 2 6
ATOM    1798 CB   PHE  264 5.483   17.358  47.005  1.000 9.92
ANISOU  1798 CB   PHE  264 1209    1201    1359    -78  17 9
ATOM    1799 CG   PHE  264 5.265   16.673  48.336  1.000 11.22
ANISOU  1799 CG   PHE  264 1241    1647    1374    -121  38 7 7
ATOM    1800 CD1  PHE  264 6.292   16.236  49.139  1.000 15.38
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ANISOU 1800 CD1 PHE   264 1467      2641     1734      -225  -8 873
ATOM   1801 CD2 PHE   264 3.988    16.433   48.808    1.000 16.96
ANISOU 1801 CD2 PHE   264 1425      3252     1769      -610 -79 958
ATOM   1802 CE1 PHE   264 6.090    15.596   50.336    1.000 14.52
ANISOU 1802 CE1 PHE   264 1745      2417     1354       162 334 452
ATOM   1803 CE2 PHE   264 3.755    15.796   50.019    1.000 18.04
ANISOU 1803 CE2 PHE   264 1747      3405     1704      -590 -109 1008
ATOM   1804 CZ  PHE   264 4.817    15.354   50.779    1.000 12.52
ANISOU 1804 CZ  PHE   264 1772      1536     1449       -57 227 334
ATOM   1805 C   PHE   264 6.535    19.038   45.533    1.000  8.98
ANISOU 1805 C   PHE   264 1103      919     1392       143  81 -92
ATOM   1806 O   PHE   264 5.497    19.368   44.930    1.000  9.79
ANISOU 1806 O   PHE   264 991 1190          1540        28 105 103
ATOM   1807 N   LEU   265 7.758    19.031   44.999    1.000  8.43
ANISOU 1807 N   LEU   265 992 884  1325       173 -180 158
ATOM   1808 CA  LEU   265 7.984    19.224   43.566    1.000  8.66
ANISOU 1808 CA  LEU   265 883 1066         1339        63 -33 -76
ATOM   1809 CB  LEU   265 9.309    19.964   43.328    1.000 10.10
ANISOU 1809 CB  LEU   265 1179      1188     1469      -225 -220 248
ATOM   1810 CG  LEU   265 9.570    20.351   41.871    1.000  9.37
ANISOU 1810 CG  LEU   265 1072      1009     1478       242  25 129
ATOM   1811 CD1 LEU   265 8.725    21.522   41.408    1.000 10.80
ANISOU 1811 CD1 LEU   265 1291      1004     1811       181 -114 296
ATOM   1812 CD2 LEU   265 11.048   20.684   41.678    1.000 10.87
ANISOU 1812 CD2 LEU   265 1129      1483     1519       134  43 146
ATOM   1813 C   LEU   265 7.933    17.849   42.875    1.000 10.21
ANISOU 1813 C   LEU   265 932 1188          1760        -6 -38 -302
ATOM   1814 O   LEU   265 8.858    17.043   43.042    1.000 10.45
ANISOU 1814 O   LEU   265 1388      969     1612        84 -217 107
ATOM   1815 N   ARG   266 6.853    17.530   42.135    1.000 10.00
ANISOU 1815 N   ARG   266 1325      1069     1404      -120 -222 1 5
ATOM   1816 CA  ARG   266 6.572    16.198   41.628    1.000 10.50
ANISOU 1816 CA  ARG   266 1219      1217     1554      -294 110 -210
ATOM   1817 CB  ARG   266 5.208    15.675   42.124    1.000 10.56
ANISOU 1817 CB  ARG   266 978 1460         1574      -168 -103 -105
ATOM   1818 CG  ARG   266 4.965    15.894   43.609    1.000 11.24
ANISOU 1818 CG  ARG   266 1337      1373     1563       -40 119 206
ATOM   1819 CD  ARG   266 3.668    15.318   44.146    1.000 11.17
ANISOU 1819 CD  ARG   266 1113      1567     1564       -17 -49 -11
ATOM   1820 NE  ARG   266 2.508    15.879   43.447    1.000  9.43
ANISOU 1820 NE  ARG   266 1341      1157     1086        24 -100 -145
ATOM   1821 CZ  ARG   266 1.236    15.509   43.657    1.000  9.83
ANISOU 1821 CZ  ARG   266 1245      1194     1294       132 -159 - 1
ATOM   1822 NH1 ARG   266 0.961    14.567   44.572    1.000 11.20
ANISOU 1822 NH1 ARG   266 1208      1240     1806      -144 -454 272
ATOM   1823 NH2 ARG   266 0.225    16.048   42.975    1.000 11.08
ANISOU 1823 NH2 ARG   266 1460      1265     1484       191 -283 7 3
ATOM   1824 C   ARG   266 6.601    16.190   40.099    1.000 10.28
ANISOU 1824 C   ARG   266 1273      1089     1545      -200 -5 -167
ATOM   1825 O   ARG   266 6.027    17.109   39.519    1.000 11.05
ANISOU 1825 O   ARG   266 1254      1153     1793      -132  47 - 6 4
ATOM   1826 N   PRO   267 7.215    15.162   39.496    1.000 10.27
ANISOU 1826 N   PRO   267 1194      1239     1468       -33 130 3 2
ATOM   1827 CD  PRO   267 7.828    13.963   40.109    1.000 12.36
ANISOU 1827 CD  PRO   267 1865      1132     1697       -26 -529 -192
ATOM   1828 CA  PRO   267 7.304    15.157   38.036    1.000 10.12
ANISOU 1828 CA  PRO   267 1278      1095     1472      -129  38 -185
ATOM   1829 CB  PRO   267 8.250    13.986   37.767    1.000 11.83
ANISOU 1829 CB  PRO   267 1489      1088     1919       -72  90 - 3 2 2
ATOM   1830 CG  PRO   267 8.017    13.053   38.913    1.000 10.72
ANISOU 1830 CG  PRO   267 960 1356         1755        95 -257 -187
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- 150 -

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ATOM   1831 C    PRO  267 5.977   14.929 37.344 1.000 10.86
ANISOU 1831 C    PRO  267 1330    1226   1570   -252 47 -161
ATOM   1832 O    PRO  267 5.030   14.421 37.934 1.000 12.03
ANISOU 1832 O    PRO  267 1316    1174   2080   -258 17 7 7
ATOM   1833 N    ASN  268 5.931   15.288 36.065 1.000 10.61
ANISOU 1833 N    ASN  268 1216    1146   1670   -70 -86 -129
ATOM   1834 CA   ASN  268 4.810   14.949 35.198 1.000 11.20
ANISOU 1834 CA   ASN  268 1285    1349   1622   -167 -43 -229
ATOM   1835 CB   ASN  268 4.954   15.664 33.846 1.000 14.02
ANISOU 1835 CB   ASN  268 2160    1410   1756   132 -316 2 3
ATOM   1836 CG   ASN  268 4.992   17.175 33.992 1.000 13.03
ANISOU 1836 CG   ASN  268 1811    1393   1747   189 -355 -8 8
ATOM   1837 OD1  ASN  268 4.046   17.748 34.566 1.000 16.65
ANISOU 1837 OD1  ASN  268 1910    1744   2673   292 -1 -159
ATOM   1838 ND2  ASN  268 6.037   17.818 33.495 1.000 14.19
ANISOU 1838 ND2  ASN  268 2505    1372   1516   161 264 -172
ATOM   1839 C    ASN  268 4.705   13.446 34.968 1.000 10.88
ANISOU 1839 C    ASN  268 1294    1314   1526   -75 -226 -164
ATOM   1840 O    ASN  268 5.715   12.732 34.979 1.000 11.68
ANISOU 1840 O    ASN  268 1534    1439   1464   87 -458 -121
ATOM   1841 N    ALA  269 3.484   12.980 34.688 1.000 12.22
ANISOU 1841 N    ALA  269 1484    1428   1732   -108 -397 -427
ATOM   1842 CA   ALA  269 3.277   11.547 34.417 1.000 12.12
ANISOU 1842 CA   ALA  269 1432    1356   1819   -238 -29 -282
ATOM   1843 CB   ALA  269 1.817   11.310 34.058 1.000 12.38
ANISOU 1843 CB   ALA  269 1439    1278   1985   -228 -183 2 9
ATOM   1844 C    ALA  269 4.125   10.981 33.283 1.000 11.26
ANISOU 1844 C    ALA  269 1445    1240   1592   25 -280 -141
ATOM   1845 O    ALA  269 4.493   9.800  33.263 1.000 12.53
ANISOU 1845 O    ALA  269 1428    1249   2085   -110 108 -188
ATOM   1846 N    ASP  270 4.438   11.799 32.276 1.000 11.47
ANISOU 1846 N    ASP  270 1701    1280   1378   -261 -341 -300
ATOM   1847 CA   ASP  270 5.214   11.378 31.113 1.000 11.92
ANISOU 1847 CA   ASP  270 1826    1106   1595   19 -183 -156
ATOM   1848 CB   ASP  270 4.760   12.096 29.850 1.000 14.13
ANISOU 1848 CB   ASP  270 1733    2038   1597   84 111 212
ATOM   1849 CG   ASP  270 5.050   13.568 29.777 1.000 15.98
ANISOU 1849 CG   ASP  270 2309    1939   1823   418 -418 564
ATOM   1850 OD1  ASP  270 5.432   14.186 30.762 1.000 21.61
ANISOU 1850 OD1  ASP  270 4101    1797   2312   176 -515 163
ATOM   1851 OD2  ASP  270 4.880   14.152 28.674 1.000 24.64
ANISOU 1851 OD2  ASP  270 3995    3221   2145   -62 -169 1395
ATOM   1852 C    ASP  270 6.721   11.542 31.264 1.000 12.86
ANISOU 1852 C    ASP  270 1840    1392   1654   -398 -61 315
ATOM   1853 O    ASP  270 7.443   11.290 30.292 1.000 14.83
ANISOU 1853 O    ASP  270 1813    2114   1709   -346 -141 4 9
ATOM   1854 N    PHE  271 7.230   11.911 32.439 1.000 11.85
ANISOU 1854 N    PHE  271 1360    1316   1824   59 -25 7 0
ATOM   1855 CA   PHE  271 8.665   11.927 32.715 1.000 11.14
ANISOU 1855 CA   PHE  271 1242    1349   1641   10 230 1 62
ATOM   1856 CB   PHE  271 8.972   12.378 34.143 1.000 12.19
ANISOU 1856 CB   PHE  271 1467    1444   1722   -96 -3 182
ATOM   1857 CG   PHE  271 10.385  11.992 34.597 1.000 12.77
ANISOU 1857 CG   PHE  271 1411    1640   1800   42 31 5 6
ATOM   1858 CD1  PHE  271 11.475  12.488 33.904 1.000 13.22
ANISOU 1858 CD1  PHE  271 1513    1516   1993   168 220 4 9
ATOM   1859 CD2  PHE  271 10.624  11.155 35.666 1.000 13.55
ANISOU 1859 CD2  PHE  271 1343    1674   2131   139 84 255
ATOM   1860 CE1  PHE  271 12.779  12.178 34.249 1.000 14.26
ANISOU 1860 CE1  PHE  271 1432    1760   2225   -39 46 -416
ATOM   1861 CE2  PHE  271 11.925  10.806 36.019 1.000 15.88
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ANISOU 1861 CE2 PHE   271 1537      1818      2679      -263  -675 2 6 0
ATOM   1862 CZ  PHE   271 13.006    11.288    35.304    1.000 14.15
ANISOU 1862 CZ  PHE   271 1166      1736      2475      7   -531  - 4 6 7
ATOM   1863 C   PHE   271 9.259     10.550    32.410    1.000 11.27
ANISOU 1863 C   PHE   271 1359      1338      1585      75 271 3 4 8
ATOM   1864 O   PHE   271 8.785     9.531     32.920    1.000 12.97
ANISOU 1864 O   PHE   271 2011      1320      1596      -85   473  2 7 9
ATOM   1865 N   THR   272 10.261    10.498    31.541    1.000 11.95
ANISOU 1865 N   THR   272 1018      1503      2020      -214  300  - 1 1 5
ATOM   1866 CA  THR   272 10.823    9.254     30.992    1.000 12.70
ANISOU 1866 CA  THR   272 1615      1557      1652      132   341  1 4 6
ATOM   1867 CB  THR   272 10.679    9.281     29.450    1.000 16.79
ANISOU 1867 CB  THR   272 1814      2829      1737      -595  157  - 4 0 6
ATOM   1868 OG1 THR   272 9.301     9.471     29.090    1.000 18.02
ANISOU 1868 OG1 THR   272 1912      2921      2013      -497  -73  9 1
ATOM   1869 CG2 THR   272 11.200    7.976     28.856    1.000 17.02
ANISOU 1869 CG2 THR   272 2144      2857      1467      -475  538  - 1 9 4
ATOM   1870 C   THR   272 12.272    9.057     31.423    1.000 12.02
ANISOU 1870 C   THR   272 1436      1573      1559      92 603 1 3 7
ATOM   1871 O   THR   272 13.055    10.031    31.437    1.000 14.17
ANISOU 1871 O   THR   272 1451      1583      2351      125   602  4 1 2
ATOM   1872 N   PHE   273 12.625    7.837     31.828    1.000 12.34
ANISOU 1872 N   PHE   273 1402      1585      1703      17 378 1 5 8
ATOM   1873 CA  PHE   273 13.953    7.492     32.312    1.000 12.20
ANISOU 1873 CA  PHE   273 1362      1364      1909      -126  336  1 4 7
ATOM   1874 CB  PHE   273 13.951    7.514     33.861    1.000 12.37
ANISOU 1874 CB  PHE   273 1362      1447      1890      -102  211  - 8
ATOM   1875 CG  PHE   273 12.988    6.528     34.491    1.000 11.65
ANISOU 1875 CG  PHE   273 1398      1631      1396      -367  42 - 2 1 5
ATOM   1876 CD1 PHE   273 11.684    6.889     34.773    1.000 14.11
ANISOU 1876 CD1 PHE   273 1531      2214      1614      -336  293  - 6 2
ATOM   1877 CD2 PHE   273 13.409    5.245     34.803    1.000 13.20
ANISOU 1877 CD2 PHE   273 2024      1639      1352      -358  339  - 9
ATOM   1878 CE1 PHE   273 10.793    5.993     35.323    1.000 13.25
ANISOU 1878 CE1 PHE   273 1536      2081      1418      -98   447  4 2
ATOM   1879 CE2 PHE   273 12.530    4.329     35.327    1.000 13.39
ANISOU 1879 CE2 PHE   273 1529      1905      1654      -224  140  2 8 3
ATOM   1880 CZ  PHE   273 11.227    4.706     35.604    1.000 14.75
ANISOU 1880 CZ  PHE   273 1444      2260      1902      -90   -186 2 7 5
ATOM   1881 C   PHE   273 14.423    6.135     31.795    1.000 12.45
ANISOU 1881 C   PHE   273 1278      1526      1927      -120  317  - 3 1
ATOM   1882 O   PHE   273 13.645    5.311     31.291    1.000 11.95
ANISOU 1882 O   PHE   273 1590      1580      1370      -137  226  - 1 3
ATOM   1883 N   SER   274 15.717    5.854     31.952    1.000 12.07
ANISOU 1883 N   SER   274 1270      1640      1677      -29   558  3 5 3
ATOM   1884 CA  SER   274 16.335    4.586     31.604    1.000 14.39
ANISOU 1884 CA  SER   274 1583      1534      2349      43 707 3 8 4
ATOM   1885 CB  SER   274 17.845    4.771     31.438    1.000 14.49
ANISOU 1885 CB  SER   274 1578      1727      2202      213   695  3 2 9
ATOM   1886 OG  SER   274 18.564    3.558     31.424    1.000 14.97
ANISOU 1886 OG  SER   274 1763      1848      2078      349   348  - 1 3
ATOM   1887 C   SER   274 16.100    3.505     32.666    1.000 13.12
ANISOU 1887 C   SER   274 1670      1481      1833      8 461 1 3 7
ATOM   1888 O   SER   274 16.438    3.700     33.834    1.000 13.50
ANISOU 1888 O   SER   274 1493      1518      2116      -65   119  1 5
ATOM   1889 N   VAL   275 15.533    2.359     32.271    1.000 11.90
ANISOU 1889 N   VAL   275 1476      1618      1427      -110  490  1 9 5
ATOM   1890 CA  VAL   275 15.283    1.254     33.180    1.000 11.41
ANISOU 1890 CA  VAL   275 1708      1424      1204      -8 286 7 6
ATOM   1891 CB  VAL   275 14.346    0.198     32.543    1.000 12.74
ANISOU 1891 CB  VAL   275 1732      1300      1809      62 164 - 1 6
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ATOM   1892 CG1 VAL 275 14.157 -1.020 33.437 1.000 16.10
ANISOU 1892 CG1 VAL 275 2352   1803   1962   -614 -663 3 7 0
ATOM   1893 CG2 VAL 275 12.961 0.763  32.261 1.000 13.81
ANISOU 1893 CG2 VAL 275 1535   1786   1924   16 363 126
ATOM   1894 C   VAL 275 16.577 0.622  33.692 1.000 12.62
ANISOU 1894 C   VAL 275 1574   1628   1594   14 375 136
ATOM   1895 O   VAL 275 16.729 0.405  34.926 1.000 13.01
ANISOU 1895 O   VAL 275 1667   1643   1634   9 118 180
ATOM   1896 N   PRO 276 17.569 0.286  32.889 1.000 14.64
ANISOU 1896 N   PRO 276 1583   2066   1914   2 454 -42
ATOM   1897 CD  PRO 276 17.583 0.285  31.415 1.000 15.84
ANISOU 1897 CD  PRO 276 1565   2536   1916   89 755 3 5
ATOM   1898 CA  PRO 276 18.827 -0.250 33.453 1.000 16.76
ANISOU 1898 CA  PRO 276 1667   2403   2296   261  393  -163
ATOM   1899 CB  PRO 276 19.732 -0.503 32.236 1.000 18.27
ANISOU 1899 CB  PRO 276 1804   2568   2571   411  574  -142
ATOM   1900 CG  PRO 276 18.868 -0.385 31.029 1.000 18.96
ANISOU 1900 CG  PRO 276 2147   2763   2293   725  694  -3 7
ATOM   1901 C   PRO 276 19.500 0.710  34.420 1.000 16.32
ANISOU 1901 C   PRO 276 1521   2342   2336   115  237  6 7
ATOM   1902 O   PRO 276 20.035 0.277  35.456 1.000 16.78
ANISOU 1902 O   PRO 276 1411   2689   2275   93 376 253
ATOM   1903 N   LEU 277 19.475 2.019  34.155 1.000 16.58
ANISOU 1903 N   LEU 277 1835   2412   2052   -15  483  1 4 8
ATOM   1904 CA  LEU 277 20.142 2.919  35.099 1.000 17.70
ANISOU 1904 CA  LEU 277 1990   2226   2511   -21  362  1 1 8
ATOM   1905 CB  LEU 277 20.298 4.277  34.425 1.000 20.20
ANISOU 1905 CB  LEU 277 2952   2292   2432   -1 -14 2 7 1
ATOM   1906 CG  LEU 277 21.048 5.359  35.186 1.000 20.86
ANISOU 1906 CG  LEU 277 2213   2221   3490   -32  -355 4 8 2
ATOM   1907 CD1 LEU 277 22.446 4.888  35.531 1.000 34.24
ANISOU 1907 CD1 LEU 277 2157   2303   8552   69 -842  2 5 8
ATOM   1908 CD2 LEU 277 21.062 6.620  34.334 1.000 31.91
ANISOU 1908 CD2 LEU 277 4745   2460   4918   -474 -572 1150
ATOM   1909 C   LEU 277 19.411 2.989  36.430 1.000 16.55
ANISOU 1909 C   LEU 277 1975   1885   2430   -218 211  -243
ATOM   1910 O   LEU 277 19.997 3.116  37.517 1.000 19.19
ANISOU 1910 O   LEU 277 2179   2636   2476   -617 50 122
ATOM   1911 N   ALA 278 18.080 2.905  36.386 1.000 15.48
ANISOU 1911 N   ALA 278 2008   1904   1969   -358 279 1 1 2
ATOM   1912 CA  ALA 278 17.308 2.896  37.636 1.000 14.51
ANISOU 1912 CA  ALA 278 2109   1763   1641   -309 74 167
ATOM   1913 CB  ALA 278 15.814 2.896  37.347 1.000 15.41
ANISOU 1913 CB  ALA 278 2017   1773   2064   66 301 626
ATOM   1914 C   ALA 278 17.710 1.684  38.479 1.000 14.55
ANISOU 1914 C   ALA 278 1972   1869   1689   -195 -255 7 9
ATOM   1915 O   ALA 278 17.894 1.770  39.683 1.000 13.80
ANISOU 1915 O   ALA 278 1444   2144   1655   -250 -166 8 9
ATOM   1916 N   ARG 279 17.841 0.530  37.842 1.000 13.86
ANISOU 1916 N   ARG 279 1795   1728   1742   -432 -128 169
ATOM   1917 CA  ARG 279 18.242 -0.679 38.560 1.000 15.88
ANISOU 1917 CA  ARG 279 1995   1973   2064   59 355 411
ATOM   1918 CB  ARG 279 18.204 -1.922 37.648 1.000 16.83
ANISOU 1918 CB  ARG 279 1889   1897   2609   84 544 250
ATOM   1919 CG  ARG 279 16.790 -2.323 37.291 1.000 19.63
ANISOU 1919 CG  ARG 279 2123   2196   3139   -63  233  9 1
ATOM   1920 CD  ARG 279 16.656 -3.288 36.131 1.000 27.03
ANISOU 1920 CD  ARG 279 3924   3198   3150   -603 -275 -198
ATOM   1921 NE  ARG 279 17.236 -4.578 36.364 1.000 27.45
ANISOU 1921 NE  ARG 279 4659   2854   2915   -359 751  -789
ATOM   1922 CZ  ARG 279 16.714 -5.717 36.779 1.000 32.85
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ANISOU 1922 CZ   ARG  279 4486      3045      4948      -475  448  -222
ATOM   1923 NH1  ARG  279 15.424   -5.874   37.089   1.000 29.96
ANISOU 1923 NH1  ARG  279 4653      2168      4562      -103  967  -678
ATOM   1924 NH2  ARG  279 17.551   -6.750   36.890   1.000 37.87
ANISOU 1924 NH2  ARG  279 4879      2436      7074      -276 3273  -824
ATOM   1925 C    ARG  279 19.628   -0.519   39.150   1.000 17.48
ANISOU 1925 C    ARG  279 2118      1653      2871        75  -8  7 0 5
ATOM   1926 O    ARG  279 19.916   -1.064   40.212   1.000 26.82
ANISOU 1926 O    ARG  279 3764      3102      3325     -1987 -1467 1383
ATOM   1927 N    GLU  280 20.538    0.189   38.505   1.000 17.73
ANISOU 1927 N    GLU  280 1983      2293      2459       109  609  3 7
ATOM   1928 CA   GLU  280 21.899    0.317   39.026   1.000 19.66
ANISOU 1928 CA   GLU  280 2049      2023      3396       125  215  7 3 7
ATOM   1929 CB   GLU  280 22.836    0.886   37.936   1.000 20.17
ANISOU 1929 CB   GLU  280 1648      2457      3560       464  138  1099
ATOM   1930 CG   GLU  280 22.964   -0.149   36.818   1.000 31.79
ANISOU 1930 CG   GLU  280 3477      4175      4427       801 1187  - 4
ATOM   1931 CD   GLU  280 23.698    0.341   35.590   1.000 39.66
ANISOU 1931 CD   GLU  280 5144      5703      4221       -64 1339  - 6
ATOM   1932 OE1  GLU  280 24.466    1.327   35.685   1.000 39.65
ANISOU 1932 OE1  GLU  280 3464      5891      5710       334  574  1639
ATOM   1933 OE2  GLU  280 23.489   -0.294   34.519   1.000 41.55
ANISOU 1933 OE2  GLU  280 5257      6747      3781      2245 -184 1 0 2
ATOM   1934 C    GLU  280 21.984    1.188   40.266   1.000 19.68
ANISOU 1934 C    GLU  280 1488      2350      3640      -566  162  4 9 0
ATOM   1935 O    GLU  280 23.031    1.142   40.958   1.000 25.69
ANISOU 1935 O    GLU  280 1871      3766      4123       231 -245 1 8 0
ATOM   1936 N    CYS  281 20.943    1.980   40.565   1.000 18.57
ANISOU 1936 N    CYS  281 1560      2609      2887      -406 -211 1 7 6
ATOM   1937 CA   CYS  281 21.098    2.762   41.806   1.000 23.83
ANISOU 1937 CA   CYS  281 3222      2647      3184     -1189  176  - 1 2 2
ATOM   1938 CB   CYS  281 21.079    4.264   41.523   1.000 25.40
ANISOU 1938 CB   CYS  281 3278      2655      3718      -426  368  - 4 6
ATOM   1939 SG   CYS  281 19.587    4.904   40.763   1.000 27.05
ANISOU 1939 SG   CYS  281 3069      2914      4295      -522  -37  - 7 9 4
ATOM   1940 C    CYS  281 20.098    2.406   42.907   1.000 16.99
ANISOU 1940 C    CYS  281 1377      1604      3475       109   -6 -546
ATOM   1941 O    CYS  281 19.971    3.173   43.889   1.000 17.04
ANISOU 1941 O    CYS  281 2294      1277      2902      -204 -484 -129
ATOM   1942 N    GLY  282 19.447    1.245   42.794   1.000 15.23
ANISOU 1942 N    GLY  282 1617      1597      2572         3  -58 -436
ATOM   1943 CA   GLY  282 18.731    0.674   43.914   1.000 15.61
ANISOU 1943 CA   GLY  282 1565      1973      2394         6 -331  -266
ATOM   1944 C    GLY  282 17.246    0.519   43.727   1.000 13.75
ANISOU 1944 C    GLY  282 1635      1562      2029      -270 -446 - 7 8
ATOM   1945 O    GLY  282 16.585    0.012   44.639   1.000 14.99
ANISOU 1945 O    GLY  282 1751      1630      2313       207 -242 4 5 5
ATOM   1946 N    PHE  283 16.744    1.009   42.582   1.000 12.65
ANISOU 1946 N    PHE  283 1434      1803      1570      -200   18 -252
ATOM   1947 CA   PHE  283 15.292    0.886   42.374   1.000 11.80
ANISOU 1947 CA   PHE  283 1477      1032      1974       -15 -264 4 6
ATOM   1948 CB   PHE  283 14.839    1.890   41.295   1.000 14.13
ANISOU 1948 CB   PHE  283 2262       972 2136    109   -187 1 5 9
ATOM   1949 CG   PHE  283 14.906    3.351   41.757   1.000 12.63
ANISOU 1949 CG   PHE  283 1711      1033      2055        47 -86  9
ATOM   1950 CD1  PHE  283 13.851    3.928   42.409   1.000 13.45
ANISOU 1950 CD1  PHE  283 1697      1399      2013      -166   24 -229
ATOM   1951 CD2  PHE  283 16.037    4.111   41.519   1.000 13.15
ANISOU 1951 CD2  PHE  283 1567      1135      2295       142  -41  - 9 9
ATOM   1952 CE1  PHE  283 13.903    5.248   42.839   1.000 15.61
ANISOU 1952 CE1  PHE  283 2111      1649      2171      -202  484  -617
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ATOM   1953 CE2 PHE   283 16.112   5.432   41.963 1.000 12.60
ANISOU 1953 CE2 PHE   283 1783    937  2068    32  -18   2 64
ATOM   1954 CZ  PHE   283 15.040   5.993   42.641 1.000 13.37
ANISOU 1954 CZ  PHE   283 1863    865  2352   187  -149  1 3
ATOM   1955 C   PHE   283 14.915  -0.534   41.972 1.000 11.23
ANISOU 1955 C   PHE   283 1527    974  1765    63  -172  6 5
ATOM   1956 O   PHE   283 15.471  -1.071   40.990 1.000 13.24
ANISOU 1956 O   PHE   283 1249   1428  2355   175  -120 -3 61
ATOM   1957 N   ASP   284 13.998  -1.130   42.712 1.000 12.31
ANISOU 1957 N   ASP   284 1607   1333  1736  -268  -312 8 7
ATOM   1958 CA  ASP   284 13.589  -2.528   42.527 1.000 12.48
ANISOU 1958 CA  ASP   284 1725   1202  1814  -148  -543 3 50
ATOM   1959 CB  ASP   284 13.159  -3.156   43.876 1.000 12.67
ANISOU 1959 CB  ASP   284 2014   1145  1656   -50  -406 1 35
ATOM   1960 CG  ASP   284 13.261  -4.667   43.909 1.000 13.40
ANISOU 1960 CG  ASP   284 2077   1171  1843   110  -419 3 63
ATOM   1961 OD1 ASP   284 13.861  -5.246   42.974 1.000 14.98
ANISOU 1961 OD1 ASP   284 1956   1094  2640   -87   11 6 0
ATOM   1962 OD2 ASP   284 12.762  -5.306   44.883 1.000 15.79
ANISOU 1962 OD2 ASP   284 2494   1539  1966  -330  -446 4 38
ATOM   1963 C   ASP   284 12.478  -2.641   41.510 1.000 10.82
ANISOU 1963 C   ASP   284 1238   1387  1487  -205  -99  1 23
ATOM   1964 O   ASP   284 11.373  -3.100   41.777 1.000 12.28
ANISOU 1964 O   ASP   284 1331   1175  2159  -209   48 1 91
ATOM   1965 N   VAL   285 12.751  -2.154   40.308 1.000 11.32
ANISOU 1965 N   VAL   285 1204   1671  1426   -93  -48  6 1
ATOM   1966 CA  VAL   285 11.748  -2.062   39.260 1.000 11.45
ANISOU 1966 CA  VAL   285 1468   1384  1500    39 -219  - 15
ATOM   1967 CB  VAL   285 12.153  -1.072   38.157 1.000 11.58
ANISOU 1967 CB  VAL   285 1412   1523  1465  -388  -428 - 8
ATOM   1968 CG1 VAL   285 12.278   0.362   38.679 1.000 15.02
ANISOU 1968 CG1 VAL   285 2209   1458  2040  -264  -442 - 32
ATOM   1969 CG2 VAL   285 13.467  -1.482   37.495 1.000 15.70
ANISOU 1969 CG2 VAL   285 1909   1443  2615  -159  309  4 47
ATOM   1970 C   VAL   285 11.424  -3.431   38.642 1.000 10.83
ANISOU 1970 C   VAL   285 1232   1281  1602    93 -221  1 08
ATOM   1971 O   VAL   285 12.267  -4.301   38.520 1.000 12.13
ANISOU 1971 O   VAL   285 1214   1192  2202   -28  300  1 62
ATOM   1972 N   SER   286 10.168  -3.523   38.248 1.000 11.09
ANISOU 1972 N   SER   286 1116   1608  1489   -76   96 7
ATOM   1973 CA  SER   286 9.558   -4.622   37.510 1.000 11.32
ANISOU 1973 CA  SER   286 1104   1479  1718   -41  -274 2 52
ATOM   1974 CB  SER   286 8.483   -5.292   38.344 1.000 9.88
ANISOU 1974 CB  SER   286 1328   1141  1285    72 -207  7 0
ATOM   1975 OG  SER   286 7.570   -4.361   38.905 1.000 11.34
ANISOU 1975 OG  SER   286 1391   1188  1729   147  -153 7 5
ATOM   1976 C   SER   286 9.019   -4.106   36.175 1.000 10.34
ANISOU 1976 C   SER   286 1127   1227  1575    28  -87 2 45
ATOM   1977 O   SER   286 7.829   -4.112   35.869 1.000 12.62
ANISOU 1977 O   SER   286 1223   2219  1353     0  -178 2 28
ATOM   1978 N   LEU   287 9.926   -3.622   35.335 1.000 12.45
ANISOU 1978 N   LEU   287 1414   1664  1653  -212    3  1 61
ATOM   1979 CA  LEU   287 9.654   -2.900   34.099 1.000 12.59
ANISOU 1979 CA  LEU   287 1622   1558  1605  -366   94 1 84
ATOM   1980 CB  LEU   287 10.145  -1.452   34.210 1.000 12.91
ANISOU 1980 CB  LEU   287 1716   1591  1597  -373  -95  2 7
ATOM   1981 CG  LEU   287 9.452   -0.590   35.264 1.000 12.96
ANISOU 1981 CG  LEU   287 1182   1848  1895  -407  -51  - 170
ATOM   1982 CD1 LEU   287 10.229   0.708   35.484 1.000 13.34
ANISOU 1982 CD1 LEU   287 1644   1108  2318   -38  -124 2 23
ATOM   1983 CD2 LEU   287 8.006   -0.248   34.914 1.000 14.56
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ANISOU 1983 CD2 LEU   287 1716     1548      2267      36 -550  3 1 8
ATOM   1984 C   LEU   287 10.319   -3.610    32.928    1.000 12.63
ANISOU 1984 C   LEU   287 1837     1244      1719      -233  248  3 5 4
ATOM   1985 O   LEU   287 11.529   -3.805    32.916    1.000 16.68
ANISOU 1985 O   LEU   287 1779     1998      2560      -292  390  -1 4 9
ATOM   1986 N   ASP   288 9.531    -4.045    31.950    1.000 13.91
ANISOU 1986 N   ASP   288 2080     1751      1455      4  223  2 2 7
ATOM   1987 CA  ASP   288 10.079   -4.688    30.759    1.000 15.50
ANISOU 1987 CA  ASP   288 2029     2269      1593      -122  605  1 5 3
ATOM   1988 CB  ASP   288 8.979    -5.478    30.043    1.000 17.00
ANISOU 1988 CB  ASP   288 2722     2125      1613      -250  362  - 2
ATOM   1989 CG  ASP   288 9.480    -6.452    29.014    1.000 19.30
ANISOU 1989 CG  ASP   288 2467     2980      1885      173  243  -3 7 7
ATOM   1990 OD1 ASP   288 10.447   -7.183    29.292    1.000 25.95
ANISOU 1990 OD1 ASP   288 2812     3190      3856      501  -239 -7 8 3
ATOM   1991 OD2 ASP   288 8.911    -6.508    27.907    1.000 31.76
ANISOU 1991 OD2 ASP   288 5375     4430      2260      1266 -849 -1 1 5 4
ATOM   1992 C   ASP   288 10.654   -3.652    29.811    1.000 17.08
ANISOU 1992 C   ASP   288 2259     2631      1602      -263  248  5 3 4
ATOM   1993 O   ASP   288 10.197   -2.502    29.708    1.000 23.31
ANISOU 1993 O   ASP   288 4276     2268      2313      -244  -13  2 9 7
ATOM   1994 N   GLY   289 11.702   -3.966    29.049    1.000 21.26
ANISOU 1994 N   GLY   289 2748     3699      1632      -610  752  5 1 1
ATOM   1995 CA  GLY   289 12.116   -2.880    28.152    1.000 21.65
ANISOU 1995 CA  GLY   289 2842     3988      1396      -1163 71 6 2 6
ATOM   1996 C   GLY   289 13.084   -1.859    28.736    1.000 22.09
ANISOU 1996 C   GLY   289 2888     3509      1996      -738  -23  2 4 3
ATOM   1997 O   GLY   289 13.414   -1.836    29.924    1.000 20.34
ANISOU 1997 O   GLY   289 3230     2606      1891      -918  124  1 4 7
ATOM   1998 N   GLU   290 13.562   -0.952    27.869    1.000 16.48
ANISOU 1998 N   GLU   290 2665     2099      1496      5  222  -4 4 5
ATOM   1999 CA  GLU   290 14.716   -0.117    28.182    1.000 16.94
ANISOU 1999 CA  GLU   290 2470     2161      1806      81 411 -4 8 4
ATOM   2000 CB  GLU   290 15.579   0.012     26.912    1.000 20.26
ANISOU 2000 CB  GLU   290 2670     2740      2287      414   863   -2 3 9
ATOM   2001 CG  GLU   290 16.071   -1.333    26.386    1.000 24.53
ANISOU 2001 CG  GLU   290 3251     3153      2916      664   1218 -6 1 2
ATOM   2002 CD  GLU   290 16.812   -2.170    27.411    1.000 27.91
ANISOU 2002 CD  GLU   290 3019     3161      4424      989   940  -2 5 1
ATOM   2003 OE1 GLU   290 17.874   -1.747    27.917    1.000 35.13
ANISOU 2003 OE1 GLU   290 3913     4458      4975      963   -85  -8 7 7
ATOM   2004 OE2 GLU   290 16.336   -3.280    27.734    1.000 43.76
ANISOU 2004 OE2 GLU   290 6893     3257      6478      -30   -748 5 9 8
ATOM   2005 C   GLU   290 14.406   1.271     28.716    1.000 14.67
ANISOU 2005 C   GLU   290 2512     1756      1308      95 142 1 0
ATOM   2006 O   GLU   290 15.260   1.840     29.412    1.000 15.25
ANISOU 2006 O   GLU   290 2074     1969      1750      50 418 -2 6 2
ATOM   2007 N   THR   291 13.232   1.814     28.437    1.000 15.72
ANISOU 2007 N   THR   291 2173     2393      1406      78 346 -5 1 9
ATOM   2008 CA  THR   291 12.792   3.087     28.991    1.000 15.16
ANISOU 2008 CA  THR   291 2080     1845      1833      -88   631  - 15
ATOM   2009 CB  THR   291 12.766   4.226     27.956    1.000 18.67
ANISOU 2009 CB  THR   291 2724     2529      1842      -361  769  3 3 6
ATOM   2010 OG1 THR   291 11.756   4.009     26.976    1.000 22.93
ANISOU 2010 OG1 THR   291 3313     3135      2265      445   78 146
ATOM   2011 CG2 THR   291 14.096   4.306     27.213    1.000 21.82
ANISOU 2011 CG2 THR   291 3035     2126      3130      357   1450 9 0 2
ATOM   2012 C   THR   291 11.402   2.920     29.622    1.000 12.86
ANISOU 2012 C   THR   291 1863     1604      1421      47 305 219
ATOM   2013 O   THR   291 10.625   2.024     29.270    1.000 16.13
ANISOU 2013 O   THR   291 2344     1983      1804      -303  750  -4 3 1
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ATOM    2014 N    ALA  292 11.037  3.791  30.542 1.000 12.41
ANISOU  2014 N    ALA  292 1495    1363   1859   -2 256 7 7
ATOM    2015 CA   ALA  292 9.746   3.839  31.202 1.000 11.57
ANISOU  2015 CA   ALA  292 1362    1257   1779   -213  153  3 7
ATOM    2016 CB   ALA  292 9.718   2.954  32.439 1.000 12.62
ANISOU  2016 CB   ALA  292 1768    1245   1784   100   357  4
ATOM    2017 C    ALA  292 9.385   5.255  31.614 1.000 10.32
ANISOU  2017 C    ALA  292 1317    1335   1270   -181  99 5 4
ATOM    2018 O    ALA  292 10.266  6.134  31.701 1.000 10.97
ANISOU  2018 O    ALA  292 1389    1138   1641   -146  279  1 0 4
ATOM    2019 N    THR  293 8.091   5.445  31.882 1.000 12.32
ANISOU  2019 N    THR  293 1486    1547   1647   -314  563  - 284
ATOM    2020 CA   THR  293 7.626   6.715  32.421 1.000 12.28
ANISOU  2020 CA   THR  293 1717    1460   1489   -168  337  - 200
ATOM    2021 CB   THR  293 6.352   7.215  31.733 1.000 13.27
ANISOU  2021 CB   THR  293 2128    1182   1730   -258  -159 - 284
ATOM    2022 OG1  THR  293 5.317   6.237  31.911 1.000 13.85
ANISOU  2022 OG1  THR  293 1831    1217   2216   8     -131  7 4
ATOM    2023 CG2  THR  293 6.474   7.303  30.212 1.000 13.72
ANISOU  2023 CG2  THR  293 1791    1683   1738   -252  -56  - 405
ATOM    2024 C    THR  293 7.363   6.635  33.937 1.000 10.58
ANISOU  2024 C    THR  293 1439    1050   1533   12 447 9
ATOM    2025 O    THR  293 7.211   5.576  34.553 1.000 10.29
ANISOU  2025 O    THR  293 1049    1102   1758   -56   93 1 1 8
ATOM    2026 N    PHE  294 7.243   7.810  34.569 1.000 11.53
ANISOU  2026 N    PHE  294 1794    1093   1494   -307  306  - 6 6
ATOM    2027 CA   PHE  294 6.806   7.939  35.950 1.000 10.41
ANISOU  2027 CA   PHE  294 1432    1061   1463   -174  125  - 162
ATOM    2028 CB   PHE  294 6.709   9.426  36.336 1.000 12.25
ANISOU  2028 CB   PHE  294 1930    1030   1694   -164  292  - 6 4
ATOM    2029 CG   PHE  294 6.270   9.658  37.770 1.000 12.77
ANISOU  2029 CG   PHE  294 1880    1136   1837   -103  178  - 427
ATOM    2030 CD1  PHE  294 7.123   9.462  38.839 1.000 14.73
ANISOU  2030 CD1  PHE  294 1976    1893   1727   -539  161  - 132
ATOM    2031 CD2  PHE  294 4.989   10.068 38.056 1.000 16.59
ANISOU  2031 CD2  PHE  294 2180    1923   2199   348   386  - 492
ATOM    2032 CE1  PHE  294 6.726   9.673  40.144 1.000 14.36
ANISOU  2032 CE1  PHE  294 1598    2028   1830   -505  280  - 118
ATOM    2033 CE2  PHE  294 4.575   10.275 39.345 1.000 16.75
ANISOU  2033 CE2  PHE  294 2214    2062   2087   692   144  - 602
ATOM    2034 CZ   PHE  294 5.426   10.065 40.413 1.000 15.17
ANISOU  2034 CZ   PHE  294 2040    1426   2296   327   97 - 135
ATOM    2035 C    PHE  294 5.484   7.195  36.172 1.000 10.89
ANISOU  2035 C    PHE  294 1401    1200   1536   -155  78 137
ATOM    2036 O    PHE  294 5.325   6.425  37.125 1.000 10.67
ANISOU  2036 O    PHE  294 1396    1297   1360   90 337 1 0 5
ATOM    2037 N    GLN  295 4.487   7.355  35.299 1.000 10.62
ANISOU  2037 N    GLN  295 1399    1187   1450   -18   88 - 2 4
ATOM    2038 CA   GLN  295 3.217   6.612  35.393 1.000 11.31
ANISOU  2038 CA   GLN  295 1433    1205   1660   -96   120  - 3 2 1
ATOM    2039 CB   GLN  295 2.284   7.053  34.254 1.000 11.66
ANISOU  2039 CB   GLN  295 1425    1053   1953   -25   63 - 141
ATOM    2040 CG   GLN  295 0.951   6.360  34.200 1.000 11.05
ANISOU  2040 CG   GLN  295 1573    1011   1614   -93   -118 1 8
ATOM    2041 CD   GLN  295 0.052   6.843  33.087 1.000 11.35
ANISOU  2041 CD   GLN  295 1592    1326   1395   173   57 - 13
ATOM    2042 OE1  GLN  295 0.349   7.823  32.378 1.000 15.06
ANISOU  2042 OE1  GLN  295 2306    1589   1825   110   7 379
ATOM    2043 NE2  GLN  295 -1.053  6.153  32.914 1.000 13.90
ANISOU  2043 NE2  GLN  295 1511    1757   2015   156   -282 2 0 8
ATOM    2044 C    GLN  295 3.412   5.107  35.389 1.000 10.12
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ANISOU 2044 C   GLN 295 1154   1203   1486   21 160 -191
ATOM   2045 O   GLN 295 2.827  4.309  36.128 1.000 11.82
ANISOU 2045 O   GLN 295 1264   1542   1686   -107 41 137
ATOM   2046 N   ASP 296 4.267  4.558  34.538 1.000 9.35
ANISOU 2046 N   ASP 296 1076   1056   1422   -118 -76 -275
ATOM   2047 CA  ASP 296 4.655  3.172  34.416 1.000 9.91
ANISOU 2047 CA  ASP 296 1241   1139   1387   56 60 -243
ATOM   2048 CB  ASP 296 5.699  2.852  33.347 1.000 10.26
ANISOU 2048 CB  ASP 296 1315   1156   1429   113 132 -36
ATOM   2049 CG  ASP 296 5.343  2.981  31.885 1.000 11.42
ANISOU 2049 CG  ASP 296 1357   1578   1405   358 121 -199
ATOM   2050 OD1 ASP 296 4.143  2.904  31.531 1.000 13.82
ANISOU 2050 OD1 ASP 296 1511   1744   1997   149 -209 -62
ATOM   2051 OD2 ASP 296 6.282  3.151  31.047 1.000 13.48
ANISOU 2051 OD2 ASP 296 1802   1758   1564   228 364 7 3
ATOM   2052 C   ASP 296 5.175  2.682  35.770 1.000 10.31
ANISOU 2052 C   ASP 296 1416   1141   1361   16 91 -198
ATOM   2053 O   ASP 296 4.852  1.551  36.197 1.000 11.40
ANISOU 2053 O   ASP 296 1428   1452   1453   -288 32 3 5
ATOM   2054 N   TRP 297 6.004  3.484  36.441 1.000 10.88
ANISOU 2054 N   TRP 297 1752   1144   1238   -161 11 5 5
ATOM   2055 CA  TRP 297 6.646  3.104  37.685 1.000 11.26
ANISOU 2055 CA  TRP 297 1768   1215   1294   -217 -57 4 5
ATOM   2056 CB  TRP 297 7.899  3.999  37.890 1.000 10.31
ANISOU 2056 CB  TRP 297 1387   1417   1112   -87 213 1 2 0
ATOM   2057 CG  TRP 297 8.621  3.651  39.172 1.000 10.98
ANISOU 2057 CG  TRP 297 1456   1394   1324   164 -29 -43
ATOM   2058 CD2 TRP 297 9.082  4.534  40.202 1.000 12.49
ANISOU 2058 CD2 TRP 297 1255   1729   1761   75 -298 -197
ATOM   2059 CE2 TRP 297 9.692  3.755  41.201 1.000 16.08
ANISOU 2059 CE2 TRP 297 1860   2049   2202   -294 -977 4 9
ATOM   2060 CE3 TRP 297 9.040  5.910  40.379 1.000 17.41
ANISOU 2060 CE3 TRP 297 2778   1740   2096   -388 -916 -234
ATOM   2061 CD1 TRP 297 8.969  2.400  39.589 1.000 13.58
ANISOU 2061 CD1 TRP 297 1617   1518   2025   0 -664 1 1 4
ATOM   2062 NE1 TRP 297 9.614  2.444  40.808 1.000 16.12
ANISOU 2062 NE1 TRP 297 2165   1909   2051   -22 -873 2 2 0
ATOM   2063 CZ2 TRP 297 10.243 4.320  42.341 1.000 19.85
ANISOU 2063 CZ2 TRP 297 2756   2383   2404   -951 -1337 2 6 7
ATOM   2064 CZ3 TRP 297 9.586  6.466  41.515 1.000 23.40
ANISOU 2064 CZ3 TRP 297 4215   2030   2645   -1001 -1757 -7 7
ATOM   2065 CH2 TRP 297 10.181 5.670  42.486 1.000 21.51
ANISOU 2065 CH2 TRP 297 3178   2457   2537   -910 -1473 -5 1
ATOM   2066 C   TRP 297 5.700  3.138  38.882 1.000 10.39
ANISOU 2066 C   TRP 297 1172   1448   1329   -280 -237 3 9 1
ATOM   2067 O   TRP 297 5.574  2.159  39.639 1.000 13.52
ANISOU 2067 O   TRP 297 1748   1830   1557   32 -91 7 0 3
ATOM   2068 N   ILE 298 5.033  4.272  39.079 1.000 12.08
ANISOU 2068 N   ILE 298 1400   1710   1480   -49 83 4 5 1
ATOM   2069 CA  ILE 298 4.223  4.521  40.272 1.000 13.43
ANISOU 2069 CA  ILE 298 1301   2484   1317   -199 -158 -3 3
ATOM   2070 CB  ILE 298 4.370  5.988  40.689 1.000 16.97
ANISOU 2070 CB  ILE 298 1877   2908   1661   -1000 214 -6 3 0
ATOM   2071 CG2 ILE 298 3.538  6.423  41.876 1.000 22.01
ANISOU 2071 CG2 ILE 298 3980   3121   1263   -233 545 -3 3 9
ATOM   2072 CG1 ILE 298 5.847  6.253  41.037 1.000 27.10
ANISOU 2072 CG1 ILE 298 2588   5151   2557   -2140 -708 9 7
ATOM   2073 CD1 ILE 298 6.365  5.522  42.266 1.000 43.13
ANISOU 2073 CD1 ILE 298 5185   8299   2904   -3717 -3055 7 0 8
ATOM   2074 C   ILE 298 2.772  4.116  40.131 1.000 10.94
ANISOU 2074 C   ILE 298 1350   1652   1156   -165 -79 9 6
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ATOM    2075 O    ILE 298  2.137   3.844  41.155 1.000 12.67
ANISOU  2075 O    ILE 298 1689   1634   1493   -102  212  352
ATOM    2076 N    GLY 299  2.267   4.077  38.897 1.000 10.14
ANISOU  2076 N    GLY 299 1412   1057   1384   -51  -377 201
ATOM    2077 CA   GLY 299  0.866   3.822  38.695 1.000 10.72
ANISOU  2077 CA   GLY 299 1335   1084   1655    0   -229 -206
ATOM    2078 C    GLY 299  0.049   5.054  38.369 1.000 12.05
ANISOU  2078 C    GLY 299 1422   1293   1864   105  -292 0
ATOM    2079 O    GLY 299  0.585   6.088  37.976 1.000 13.11
ANISOU  2079 O    GLY 299 1917   1199   1866   174   80  -23
ATOM    2080 N    GLY 300 -1.268   4.931  38.490 1.000 13.92
ANISOU  2080 N    GLY 300 1393   1531   2363   182  -410 -223
ATOM    2081 CA   GLY 300 -2.237   5.932  38.087 1.000 14.02
ANISOU  2081 CA   GLY 300 1524   1471   2331   217  -563 -336
ATOM    2082 C    GLY 300 -2.587   7.015  39.074 1.000 11.97
ANISOU  2082 C    GLY 300 940 1603    2004   67  -488 -295
ATOM    2083 O    GLY 300 -3.322   7.950  38.722 1.000 10.90
ANISOU  2083 O    GLY 300 1219   1408   1515   -37  -203 -134
ATOM    2084 N    ASN 301 -2.090   6.910  40.285 1.000 11.64
ANISOU  2084 N    ASN 301 948 1557    1917   -383 -327 165
ATOM    2085 CA   ASN 301 -2.195   7.915  41.323 1.000 13.39
ANISOU  2085 CA   ASN 301 1626   1904   1557   -191 -403 183
ATOM    2086 CB   ASN 301 -3.047   7.301  42.427 1.000 17.60
ANISOU  2086 CB   ASN 301 1391   2869   2426   -9 326 228
ATOM    2087 CG   ASN 301 -4.021   8.196  43.108 1.000 19.15
ANISOU  2087 CG   ASN 301 2549   2827   1900   805   59 377
ATOM    2088 OD1  ASN 301 -5.072   8.606  42.591 1.000 15.47
ANISOU  2088 OD1  ASN 301 1258   2340   2280   -253 339  - 8
ATOM    2089 ND2  ASN 301 -3.661   8.510  44.367 1.000 29.28
ANISOU  2089 ND2  ASN 301 3585   4783   2758   1521 -850 -885
ATOM    2090 C    ASN 301 -0.862   8.331  41.914 1.000 11.31
ANISOU  2090 C    ASN 301 1436   1669   1194   1    1  -168
ATOM    2091 O    ASN 301 -0.033   7.456  42.221 1.000 12.03
ANISOU  2091 O    ASN 301 1483   1548   1542   -151 -279 8 2
ATOM    2092 N    TYR 302 -0.634   9.628  42.133 1.000 11.53
ANISOU  2092 N    TYR 302 1186   1584   1611   -61   26 102
ATOM    2093 CA   TYR 302  0.573  10.046  42.838 1.000 11.90
ANISOU  2093 CA   TYR 302 1260   1395   1865    5   -212 225
ATOM    2094 CB   TYR 302  0.657  11.589  43.036 1.000 13.14
ANISOU  2094 CB   TYR 302 1768   1404   1820   -273  190 181
ATOM    2095 CG   TYR 302  1.082  12.287  41.750 1.000 10.88
ANISOU  2095 CG   TYR 302 1395   1347   1393   -321   2  -153
ATOM    2096 CD1  TYR 302  2.421  12.439  41.413 1.000 11.29
ANISOU  2096 CD1  TYR 302 1385   1246   1659   -58   98  -46
ATOM    2097 CE1  TYR 302  2.859  13.075  40.248 1.000 10.60
ANISOU  2097 CE1  TYR 302 1055   1241   1732   -11   52  - 1
ATOM    2098 CD2  TYR 302  0.161  12.793  40.858 1.000 11.30
ANISOU  2098 CD2  TYR 302 1304   1332   1656   -145  105  - 26
ATOM    2099 CE2  TYR 302  0.573  13.406  39.690 1.000 11.72
ANISOU  2099 CE2  TYR 302 1013   1733   1708   -288 -138 161
ATOM    2100 CZ   TYR 302  1.907  13.551  39.375 1.000 10.35
ANISOU  2100 CZ   TYR 302 1009   1214   1709   -229  -50  - 19
ATOM    2101 OH   TYR 302  2.284  14.153  38.202 1.000 11.82
ANISOU  2101 OH   TYR 302 1192   1532   1766   -8 102 104
ATOM    2102 C    TYR 302  0.654   9.349  44.196 1.000 12.45
ANISOU  2102 C    TYR 302 1517   1450   1765   -181 -202 217
ATOM    2103 O    TYR 302 -0.375   9.230  44.878 1.000 13.55
ANISOU  2103 O    TYR 302 1464   1925   1759   -339 -211 7
ATOM    2104 N    VAL 303  1.868   8.967  44.542 1.000 12.06
ANISOU  2104 N    VAL 303 1517   1653   1413   -135  -3 340
ATOM    2105 CA   VAL 303  2.309   8.430  45.820 1.000 11.88
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ANISOU 2105 CA   VAL  303 1434     1609     1471      -368 -197 2 2 3
ATOM   2106 CB   VAL  303 2.755    6.967    45.736    1.000 14.57
ANISOU 2106 CB   VAL  303 1395     1682     2459      -217 -918 3 1 2
ATOM   2107 CG1  VAL  303 3.131    6.462    47.132    1.000 17.33
ANISOU 2107 CG1  VAL  303 2644     1608     2331      -48  -1114 6 1
ATOM   2108 CG2  VAL  303 1.703    6.041    45.122    1.000 14.80
ANISOU 2108 CG2  VAL  303 1876     1676     2069      -592 -639 3 2 2
ATOM   2109 C    VAL  303 3.467    9.328    46.303    1.000 13.88
ANISOU 2109 C    VAL  303 870 1791          2613        75 -286 -375
ATOM   2110 O    VAL  303 4.526    9.417    45.681    1.000 19.70
ANISOU 2110 O    VAL  303 1064     2307     4114      -61   323  -999
ATOM   2111 N    ASN  304 3.271    10.046   47.393    1.000 13.77
ANISOU 2111 N    ASN  304 1681     1815     1737      -479 -388 1 4 0
ATOM   2112 CA   ASN  304 4.205    11.077   47.828    1.000 13.37
ANISOU 2112 CA   ASN  304 1626     1240     2212      -213 -533 2 7 9
ATOM   2113 CB   ASN  304 3.460    12.223   48.566    1.000 13.24
ANISOU 2113 CB   ASN  304 1206     1454     2370      -243 -344 2 9 6
ATOM   2114 CG   ASN  304 2.457    12.922   47.667    1.000 14.16
ANISOU 2114 CG   ASN  304 1142     2326     1910       146 -88  2 3 0
ATOM   2115 OD1  ASN  304 2.776    13.283   46.540    1.000 16.65
ANISOU 2115 OD1  ASN  304 1408     2456     2464       107  185 9 1 6
ATOM   2116 ND2  ASN  304 1.263    13.126   48.209    1.000 17.45
ANISOU 2116 ND2  ASN  304 1414     2961     2257       545  181 3 1 5
ATOM   2117 C    ASN  304 5.325    10.588   48.728    1.000 11.18
ANISOU 2117 C    ASN  304 1382     1299     1566      -183 -163 1 1 2
ATOM   2118 O    ASN  304 6.396    11.232   48.699    1.000 12.07
ANISOU 2118 O    ASN  304 1325     1382     1879      -167 -66  -59
ATOM   2119 N    ILE  305 5.092    9.541    49.516    1.000 12.56
ANISOU 2119 N    ILE  305 1791     1296     1685      -152 -232 2 0 2
ATOM   2120 CA   ILE  305 6.063    9.011    50.463    1.000 14.01
ANISOU 2120 CA   ILE  305 2314     1393     1614      -55  -479 7 9
ATOM   2121 CB   ILE  305 5.781    9.493    51.906    1.000 14.44
ANISOU 2121 CB   ILE  305 2223     1604     1659      -29  -217 1 57
ATOM   2122 CG2  ILE  305 5.725    11.017   51.956    1.000 15.31
ANISOU 2122 CG2  ILE  305 1768     1608     2441       43 -479  -3 1 4
ATOM   2123 CG1  ILE  305 4.543    8.853    52.498    1.000 14.83
ANISOU 2123 CG1  ILE  305 1779     1694     2163       27 -307  -153
ATOM   2124 CD1  ILE  305 4.163    9.252    53.900    1.000 28.68
ANISOU 2124 CD1  ILE  305 3788     5324     1786      -1491 381  9 2
ATOM   2125 C    ILE  305 6.059    7.487    50.389    1.000 12.79
ANISOU 2125 C    ILE  305 1703     1355     1800      -260 -586 2 3 1
ATOM   2126 O    ILE  305 5.111    6.864    49.897    1.000 15.63
ANISOU 2126 O    ILE  305 1779     1564     2597      -185 -1008 2 7 7
ATOM   2127 N    ARG  306 7.170    6.896    50.829    1.000 13.04
ANISOU 2127 N    ARG  306 1618     1389     1946      -368 -598 3 8 3
ATOM   2128 CA   ARG  306 7.340    5.435    50.868    1.000 11.82
ANISOU 2128 CA   ARG  306 1352     1366     1773      -375 -154 4 4 4
ATOM   2129 CB   ARG  306 8.111    4.965    49.640    1.000 15.28
ANISOU 2129 CB   ARG  306 1976     1941     1886      -368 -19  1 1 1
ATOM   2130 CG   ARG  306 8.203    3.472    49.395    1.000 17.16
ANISOU 2130 CG   ARG  306 2566     1953     2001      -68  -68  7 6
ATOM   2131 CD   ARG  306 8.344    3.075    47.937    1.000 19.51
ANISOU 2131 CD   ARG  306 2921     2361     2130      -397 -396 -3 0 2
ATOM   2132 NE   ARG  306 7.078    3.198    47.212    1.000 20.65
ANISOU 2132 NE   ARG  306 2693     2844     2309      -1056 -310 2 1 4
ATOM   2133 CZ   ARG  306 6.948    3.186    45.893    1.000 17.11
ANISOU 2133 CZ   ARG  306 2006     2225     2268       45 -91  5 9 6
ATOM   2134 NH1  ARG  306 8.013    3.065    45.083    1.000 21.58
ANISOU 2134 NH1  ARG  306 2405     2677     3116      -232  381  -669
ATOM   2135 NH2  ARG  306 5.734    3.301    45.365    1.000 17.51
ANISOU 2135 NH2  ARG  306 2235     1550     2868       150  -484 -162
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ATOM    2136 C    ARG 306  8.035    5.027  52.155 1.000 13.45
ANISOU  2136 C    ARG 306  2254    1018   1837   -246  -481 9  8
ATOM    2137 O    ARG 306  9.006    5.682  52.556 1.000 12.15
ANISOU  2137 O    ARG 306  1902    1099   1615   -18   -362 - 8 0
ATOM    2138 N    ARG 307  7.571    3.968  52.811 1.000 18.19
ANISOU  2138 N    ARG 307  3073    1620   2218   -734  -938 7 9 2
ATOM    2139 CA   ARG 307  8.197    3.380  53.989 1.000 19.20
ANISOU  2139 CA   ARG 307  3053    1963   2277   -675  -1236 6 4 3
ATOM    2140 C    ARG 307  9.086    2.191  53.611 1.000 23.08
ANISOU  2140 C    ARG 307  4018    1905   2847   -270  -1885 3 2 9
ATOM    2141 O    ARG 307  8.636    1.292  52.895 1.000 35.93
ANISOU  2141 O    ARG 307  6003    2403   5244   38 -3227 -7 9 1
ATOM    2142 CB   ARG 307  7.131    2.918  54.997 1.000 28.25
ANISOU  2142 CB   ARG 307  5557    3297   1882   -1503 -277 5 0 9
ATOM    2143 CG   ARG 307  6.032    3.921  55.275 1.000 33.39
ANISOU  2143 CG   ARG 307  4564    4859   3261   -1613 731  2 0 8
ATOM    2144 CD   ARG 307  5.022    3.523  56.317 1.000 40.42
ANISOU  2144 CD   ARG 307  6335    5701   3322   -1900 1263 9 7 1
ATOM    2145 NE   ARG 307  5.605    2.952  57.529 1.000 50.83
ANISOU  2145 NE   ARG 307  8119    7287   3908   -2786 105  1 6 2 4
ATOM    2146 CZ   ARG 307  4.894    2.441  58.530 1.000 51.36
ANISOU  2146 CZ   ARG 307  7424    8064   4025   -3650 -966 2 4 5 1
ATOM    2147 NH1  ARG 307  3.567    2.422  58.485 1.000 69.51
ANISOU  2147 NH1  ARG 307  7586    10951  7874   -6970 -2008 3 2 4 5
ATOM    2148 NH2  ARG 307  5.489    1.937  59.600 1.000 59.99
ANISOU  2148 NH2  ARG 307  10714   8150   3930   -5986 -3291 2 0 2 8
ATOM    2149 N    THR 308  10.347   2.147  54.048 1.000 22.92
ANISOU  2149 N    THR 308  2759    2587   3364   -589  -200 1 7 0
ATOM    2150 CA   THR 308  11.215   1.009  53.794 1.000 24.47
ANISOU  2150 CA   THR 308  3382    2649   3268   -360  52 1 5 0
ATOM    2151 C    THR 308  10.602  -0.252  54.382 1.000 31.10
ANISOU  2151 C    THR 308  5251    2520   4044   -768  16 2 7 9
ATOM    2152 O    THR 308  10.610  -1.292  53.718 1.000 31.44
ANISOU  2152 O    THR 308  4573    2676   4696   -457  -1745 - 4 0
ATOM    2153 CB   THR 308  12.615   1.279  54.378 1.000 23.51
ANISOU  2153 CB   THR 308  3718    2086   3131   413   -694 5 4 2
ATOM    2154 OG1  THR 308  13.195   2.410  53.705 1.000 23.61
ANISOU  2154 OG1  THR 308  2711    2503   3754   153   437  - 9
ATOM    2155 CG2  THR 308  13.573   0.141  54.117 1.000 26.37
ANISOU  2155 CG2  THR 308  4427    2796   2796   927   -329 - 1 8
ATOM    2156 N    SER 309  10.066  -0.156  55.596 1.000 28.39
ANISOU  2156 N    SER 309  3759    2774   4252   -19   2  1 3 0 0
ATOM    2157 CA   SER 309  9.488   -1.335  56.238 1.000 34.69
ANISOU  2157 CA   SER 309  6110    3146   3925   -1066 -1089 1 6 2 6
ATOM    2158 C    SER 309  8.109   -1.737  55.724 1.000 41.41
ANISOU  2158 C    SER 309  6442    3910   5383   -2171 -1170 2 1 4 4
ATOM    2159 O    SER 309  7.672   -2.884  55.952 1.000 57.05
ANISOU  2159 O    SER 309  11389   5141   5146   -4907 -2077 2 0 2 7
ATOM    2160 CB   SER 309  9.450   -1.104  57.755 1.000 31.61
ANISOU  2160 CB   SER 309  4863    2958   4188   -483  368  9 6 2
ATOM    2161 OG   SER 309  8.485   -0.135  58.107 1.000 38.99
ANISOU  2161 OG   SER 309  4731    3477   6604   313   -2249 - 4 9 6
ATOM    2162 N    LYS 310  7.391   -0.868  55.032 1.000 47.69
ANISOU  2162 N    LYS 310  5502    5577   7040   -539  -1369 1 5 8 3
ATOM    2163 FE   IUM 312  8.574   13.466  54.055 1.000 11.05
ANISOU  2163 FE   IUM 312  1690    1156   1351   -101  -237 7  1
ATOM    2164 C1   AKG 313  5.987   14.815  54.612 1.000 19.65
ANISOU  2164 C1   AKG 313  2777    2119   2572   258   -117 5 5 6
ATOM    2165 O1   AKG 313  4.799   15.240  54.659 1.000 20.82
ANISOU  2165 O1   AKG 313  2957    2293   2659   514   -234 2 6 4
ATOM    2166 O2   AKG 313  6.643   14.144  53.787 1.000 17.79
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ANISOU 2166 O2   AKG  313 2407     1765     2587     74  -377   429
ATOM   2167 C2   AKG  313 6.867   15.178   55.844  1.000 20.08
ANISOU 2167 C2   AKG  313 1997     2566     3068   -528   419  -399
ATOM   2168 O5   AKG  313 7.982   14.661   55.821  1.000 17.60
ANISOU 2168 O5   AKG  313 2289     2066     2334   -314   226  -252
ATOM   2169 C3   AKG  313 6.272   16.080   56.872  1.000 21.69
ANISOU 2169 C3   AKG  313 2751     1910     3581    240    62  -327
ATOM   2170 C4   AKG  313 7.318   16.741   57.716  1.000 21.50
ANISOU 2170 C4   AKG  313 3246     1761     3160    199  -143  -185
ATOM   2171 C5   AKG  313 6.923   17.816   58.672  1.000 22.58
ANISOU 2171 C5   AKG  313 3122     1840     3618    755  -495  -313
ATOM   2172 O3   AKG  313 7.754   18.591   59.124  1.000 27.48
ANISOU 2172 O3   AKG  313 3581     2470     4389    -34   602 -1266
ATOM   2173 O4   AKG  313 5.660   17.889   58.999  1.000 28.55
ANISOU 2173 O4   AKG  313 3191     2809     4846    612  -246 -1148
ATOM   2174 S    SO4  401 11.676    0.439   24.942  1.000 40.14
ATOM   2175 O1   SO4  401 11.293    0.826   26.321  1.000 33.12
ATOM   2176 O2   SO4  401 12.501   -0.829   25.014  1.000 35.79
ATOM   2177 O3   SO4  401 10.430    0.189   24.129  1.000 54.89
ATOM   2178 O4   SO4  401 12.500    1.520   24.329  1.000 44.80
ATOM   2179 OW   HOH  501 -6.455   10.219   44.319  1.000 14.29
ATOM   2180 OW   HOH  502 -10.520  18.612   50.560  1.000 12.86
ATOM   2181 OW   HOH  503 -8.644   16.907   47.858  1.000 16.83
ATOM   2182 OW   HOH  504 -10.313  20.800   43.074  1.000 16.10
ATOM   2183 OW   HOH  505 -6.051   19.199   52.602  1.000 16.38
ATOM   2184 OW   HOH  506 -6.873   24.642   47.100  1.000 20.55
ATOM   2185 OW   HOH  507 10.676   -4.179   46.406  1.000 27.41
ATOM   2186 OW   HOH  508 -0.077   21.786   40.872  1.000 15.22
ATOM   2187 OW   HOH  509 5.761    13.656   46.041  1.000 17.40
ATOM   2188 OW   HOH  510 29.135   31.449   51.982  1.000 18.40
ATOM   2189 OW   HOH  511 26.032   32.724   52.741  1.000 17.03
ATOM   2190 OW   HOH  512 10.965   32.371   46.000  1.000 16.70
ATOM   2191 OW   HOH  513 23.871   24.457   58.649  1.000 18.71
ATOM   2192 OW   HOH  514 26.353   29.063   50.326  1.000 18.96
ATOM   2193 OW   HOH  515 23.191   33.106   53.153  1.000 20.41
ATOM   2194 OW   HOH  516 21.429   11.721   55.329  1.000 18.39
ATOM   2195 OW   HOH  517 9.122    15.567   53.585  1.000 24.87
ATOM   2196 OW   HOH  518 27.843   17.352   53.437  1.000 27.76
ATOM   2197 OW   HOH  519 -14.415  20.029   44.444  1.000 23.47
ATOM   2198 OW   HOH  520 15.253   33.050   51.771  1.000 27.20
ATOM   2199 OW   HOH  521 14.080   31.486   44.302  1.000 21.58
ATOM   2200 OW   HOH  522 17.770   33.842   53.596  1.000 23.56
ATOM   2201 OW   HOH  523 3.671    24.673   36.173  1.000 20.95
ATOM   2202 OW   HOH  524 -15.683  28.618   52.535  1.000 24.05
ATOM   2203 OW   HOH  525 -5.386   20.413   39.013  1.000 26.85
ATOM   2204 OW   HOH  526 10.417   27.949   58.778  1.000 28.33
ATOM   2205 OW   HOH  527 23.165   19.592   62.202  1.000 29.36
ATOM   2206 OW   HOH  528 23.736   10.550   55.737  1.000 24.02
ATOM   2207 OW   HOH  529 -1.662   28.650   42.485  1.000 21.62
ATOM   2208 OW   HOH  530 -4.689   10.177   46.511  1.000 31.65
ATOM   2209 OW   HOH  531 1.545    35.657   50.866  1.000 19.59
ATOM   2210 OW   HOH  532 0.980    22.687   36.818  1.000 30.57
ATOM   2211 OW   HOH  533 -12.450  16.848   56.071  1.000 28.42
ATOM   2212 OW   HOH  534 -9.418   16.139   51.364  1.000 22.60
ATOM   2213 OW   HOH  535 32.711   25.816   43.116  1.000 31.44
ATOM   2214 OW   HOH  536 27.068   24.587   55.468  1.000 23.32
ATOM   2215 OW   HOH  537 13.523   11.832   51.199  1.000 10.73
ATOM   2216 OW   HOH  538 8.513    16.158   35.074  1.000 12.26
ATOM   2217 OW   HOH  539 0.922    2.590    35.058  1.000 14.79
ATOM   2218 OW   HOH  540 -1.548   3.709    34.484  1.000 14.25
ATOM   2219 OW   HOH  541 11.711   16.898   30.416  1.000 17.84
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ATOM	2220	OW	HOH	542	15.389	11.536	32.065	1.000	17.88
ATOM	2221	OW	HOH	543	18.496	6.995	52.191	1.000	17.47
ATOM	2222	OW	HOH	544	19.848	22.580	35.334	1.000	17.28
ATOM	2223	OW	HOH	545	-0.387	4.787	41.967	1.000	13.22
ATOM	2224	OW	HOH	546	23.502	12.662	35.308	1.000	18.14
ATOM	2225	OW	HOH	547	10.332	25.236	33.926	1.000	19.05
ATOM	2226	OW	HOH	548	21.447	20.605	34.090	1.000	17.24
ATOM	2227	OW	HOH	549	8.164	7.685	27.077	1.000	25.40
ATOM	2228	OW	HOH	550	14.393	-5.127	40.321	1.000	15.88
ATOM	2229	OW	HOH	551	12.873	29.356	39.662	1.000	16.45
ATOM	2230	OW	HOH	552	11.974	24.144	58.426	1.000	19.71
ATOM	2231	OW	HOH	553	17.521	7.949	33.182	1.000	17.90
ATOM	2232	OW	HOH	554	3.401	2.691	43.340	1.000	23.76
ATOM	2233	OW	HOH	555	18.669	28.057	40.079	1.000	18.44
ATOM	2234	OW	HOH	556	10.827	12.928	30.017	1.000	19.57
ATOM	2235	OW	HOH	557	20.630	16.270	66.466	1.000	20.84
ATOM	2236	OW	HOH	558	11.315	20.266	64.044	1.000	21.62
ATOM	2237	OW	HOH	559	26.277	14.516	43.946	1.000	16.22
ATOM	2238	OW	HOH	560	9.616	15.488	32.365	1.000	19.40
ATOM	2239	OW	HOH	561	8.888	4.903	27.857	1.000	22.74
ATOM	2240	OW	HOH	562	20.496	-1.851	42.511	1.000	22.98
ATOM	2241	OW	HOH	563	17.033	29.415	38.332	1.000	26.36
ATOM	2242	OW	HOH	564	18.595	6.141	37.697	1.000	25.10
ATOM	2243	OW	HOH	565	22.446	13.893	31.420	1.000	29.00
ATOM	2244	OW	HOH	566	6.586	3.577	28.350	1.000	27.82
ATOM	2245	OW	HOH	567	6.250	20.077	30.961	1.000	23.27
ATOM	2246	OW	HOH	568	7.341	16.113	31.186	1.000	28.59
ATOM	2247	OW	HOH	569	16.090	32.070	42.552	1.000	33.08
ATOM	2248	OW	HOH	570	11.500	28.806	37.258	1.000	25.17
ATOM	2249	OW	HOH	571	12.901	26.768	58.591	1.000	28.58
ATOM	2250	OW	HOH	572	-17.071	17.043	50.450	1.000	28.82
ATOM	2251	OW	HOH	573	25.262	7.705	37.199	1.000	39.05
ATOM	2252	OW	HOH	574	32.884	26.440	51.734	1.000	29.03
ATOM	2253	OW	HOH	575	-1.199	19.088	42.527	1.000	14.86
ATOM	2254	OW	HOH	576	-4.389	33.026	63.392	1.000	29.56
ATOM	2255	OW	HOH	577	17.569	25.732	32.249	1.000	20.62
ATOM	2256	OW	HOH	578	-19.107	12.822	67.516	1.000	22.35
ATOM	2257	OW	HOH	579	29.333	19.198	51.975	1.000	22.51
ATOM	2258	OW	HOH	580	27.950	27.635	51.903	1.000	25.40
ATOM	2259	OW	HOH	581	-21.085	14.501	68.535	1.000	21.19
ATOM	2260	OW	HOH	582	1.529	17.378	33.953	1.000	25.29
ATOM	2261	OW	HOH	583	9.138	20.887	66.894	1.000	33.92
ATOM	2262	OW	HOH	584	-11.896	19.091	44.780	1.000	17.48
ATOM	2263	OW	HOH	585	6.382	12.597	43.347	1.000	22.09
ATOM	2264	OW	HOH	586	17.762	21.268	29.046	1.000	20.79
ATOM	2265	OW	HOH	587	-11.500	25.438	41.729	1.000	29.68
ATOM	2266	OW	HOH	588	7.877	1.046	29.689	1.000	27.70
ATOM	2267	OW	HOH	589	27.985	13.540	42.235	1.000	25.91
ATOM	2268	OW	HOH	590	1.276	14.852	34.021	1.000	20.41
ATOM	2269	OW	HOH	591	24.622	24.179	41.242	1.000	26.77
ATOM	2270	OW	HOH	592	0.404	14.096	36.006	1.000	27.92
ATOM	2271	OW	HOH	593	-2.835	36.981	57.827	1.000	31.86
ATOM	2272	OW	HOH	594	3.276	0.788	39.940	1.000	32.07
ATOM	2273	OW	HOH	595	11.025	-8.794	31.468	1.000	27.18
ATOM	2274	OW	HOH	596	6.301	2.276	42.639	1.000	29.74
ATOM	2275	OW	HOH	597	29.302	16.146	62.924	1.000	43.75
ATOM	2276	OW	HOH	598	19.039	20.964	67.011	1.000	30.85
ATOM	2277	OW	HOH	599	8.380	22.088	64.518	1.000	42.62
ATOM	2278	OW	HOH	600	21.480	10.826	34.742	1.000	25.74
ATOM	2279	OW	HOH	601	-2.907	21.956	38.566	1.000	30.92
ATOM	2280	OW	HOH	602	-3.928	29.841	43.352	1.000	43.96

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ATOM   2281 OW   HOH   603  2.885   21.563  34.437  1.000 33.10
ATOM   2282 OW   HOH   604  11.801   6.043  25.270  1.000 38.18
ATOM   2283 OW   HOH   605  -1.019  17.197  40.472  1.000 18.48
ATOM   2284 OW   HOH   606  18.382  23.349  68.110  1.000 22.54
ATOM   2285 OW   HOH   607  -8.141   8.137  45.609  1.000 17.64
ATOM   2286 OW   HOH   608  5.022    2.667  51.700  1.000 24.29
ATOM   2287 OW   HOH   609  17.557  10.755  33.490  1.000 21.94
ATOM   2288 OW   HOH   610  11.222   1.201  49.675  1.000 20.61
ATOM   2289 OW   HOH   611  4.243   35.047  50.509  1.000 22.18
ATOM   2290 OW   HOH   612  11.103   4.031  56.082  1.000 22.08
ATOM   2291 OW   HOH   613  11.366  31.522  36.791  1.000 32.32
ATOM   2292 OW   HOH   614  -21.189 24.787  52.739  1.000 31.83
ATOM   2293 OW   HOH   615  7.847   -1.491  30.674  1.000 24.77
ATOM   2294 OW   HOH   616  19.041  11.937  31.445  1.000 25.97
ATOM   2295 OW   HOH   617  6.221   29.879  40.410  1.000 29.24
ATOM   2296 OW   HOH   618  17.266   5.933  35.280  1.000 23.72
ATOM   2297 OW   HOH   619  5.983   -7.215  28.510  1.000 28.19
ATOM   2298 OW   HOH   620  22.574   8.129  57.639  1.000 30.97
ATOM   2299 OW   HOH   621  2.553    7.806  60.287  1.000 28.77
ATOM   2300 OW   HOH   622  29.939  25.812  51.234  1.000 34.00
ATOM   2301 OW   HOH   623  2.205   34.823  53.632  1.000 25.88
ATOM   2302 OW   HOH   624  18.091  13.838  67.343  1.000 28.46
ATOM   2303 OW   HOH   625  8.342    3.195  58.475  1.000 26.84
ATOM   2304 OW   HOH   626  -16.086 18.427  42.790  1.000 31.11
ATOM   2305 OW   HOH   627  -2.098  13.445  35.620  1.000 27.48
ATOM   2306 OW   HOH   628  0.481   30.471  42.834  1.000 32.55
ATOM   2307 OW   HOH   629  13.368  33.845  42.899  1.000 28.70
ATOM   2308 OW   HOH   630  -13.792 14.642  51.533  1.000 25.58
ATOM   2309 OW   HOH   631  3.299    1.461  29.242  1.000 39.62
ATOM   2310 OW   HOH   632  -16.012 20.690  46.705  1.000 27.75
ATOM   2311 OW   HOH   633  19.606   8.142  31.259  1.000 27.02
ATOM   2312 OW   HOH   634  5.077    7.954  57.205  1.000 30.59
ATOM   2313 OW   HOH   635  -1.502   6.963  45.877  1.000 35.68
ATOM   2314 OW   HOH   636  9.974   17.449  38.804  1.000 21.84
ATOM   2315 OW   HOH   637  -22.829 12.836  67.228  1.000 25.04
ATOM   2316 OW   HOH   638  6.275   34.333  39.722  1.000 25.88
ATOM   2317 OW   HOH   639  2.248   19.798  56.051  1.000 26.67
ATOM   2318 OW   HOH   640  -20.552 17.013  67.454  1.000 31.34
ATOM   2319 OW   HOH   641  9.298   16.570  28.911  1.000 29.96
ATOM   2320 OW   HOH   642  -1.732  11.113  60.074  1.000 28.13
ATOM   2321 OW   HOH   643  34.157  23.604  44.657  1.000 36.36
ATOM   2322 OW   HOH   644  24.298  20.199  33.576  1.000 34.90
ATOM   2323 OW   HOH   645  13.803  -4.667  31.570  1.000 32.66
ATOM   2324 OW   HOH   646  6.295   -2.594  29.009  1.000 34.61
ATOM   2325 OW   HOH   647  5.623   37.039  49.318  1.000 28.08
ATOM   2326 OW   HOH   648  -18.805 19.286  46.868  1.000 38.32
ATOM   2327 OW   HOH   649  16.026  35.829  49.382  1.000 34.45
ATOM   2328 OW   HOH   650  -12.187 28.769  45.330  1.000 27.36
ATOM   2329 OW   HOH   651  21.344   5.778  55.101  1.000 27.43
ATOM   2330 OW   HOH   652  -1.848   2.125  32.240  1.000 32.02
ATOM   2331 OW   HOH   653  -14.568 18.811  55.775  1.000 29.95
ATOM   2332 OW   HOH   654  -8.655  26.254  38.301  1.000 32.07
ATOM   2333 OW   HOH   655  18.836  13.542  28.102  1.000 32.24
ATOM   2334 OW   HOH   656  16.217  14.669  25.619  1.000 33.35
ATOM   2335 OW   HOH   657  28.678  14.477  38.043  1.000 30.94
ATOM   2336 OW   HOH   658  -11.834 15.408  53.330  1.000 33.25
ATOM   2337 OW   HOH   659  -1.317  38.273  59.599  1.000 34.45
ATOM   2338 OW   HOH   660  8.784   13.918  28.681  1.000 33.62
ATOM   2339 OW   HOH   661  -3.058  14.508  47.405  1.000 28.79
ATOM   2340 OW   HOH   662  10.968  33.651  38.533  1.000 36.21
ATOM   2341 OW   HOH   663  28.960  21.602  53.665  1.000 29.25
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ATOM	2342	OW	HOH	664	-10.709	26.808	39.175	1.000	42.71
ATOM	2343	OW	HOH	665	17.790	7.093	55.023	1.000	30.29
ATOM	2344	OW	HOH	666	6.404	24.865	29.848	1.000	34.55
ATOM	2345	OW	HOH	667	-15.418	19.777	58.341	1.000	33.82
ATOM	2346	OW	HOH	668	0.000	0.000	37.259	0.330	49.90
ATOM	2347	OW	HOH	669	19.652	24.610	33.660	1.000	31.77
ATOM	2348	OW	HOH	670	17.188	9.619	29.950	1.000	29.94
ATOM	2349	OW	HOH	671	17.708	2.958	28.338	1.000	34.94
ATOM	2350	OW	HOH	672	-0.059	3.652	30.079	1.000	32.23
ATOM	2351	OW	HOH	673	29.037	20.923	56.153	1.000	28.52
ATOM	2352	OW	HOH	674	-15.435	31.088	53.795	1.000	35.61
ATOM	2353	OW	HOH	675	-12.846	21.220	61.856	1.000	38.79
ATOM	2354	OW	HOH	676	10.299	39.666	49.554	1.000	40.30
ATOM	2355	OW	HOH	677	-5.921	28.822	41.521	1.000	34.01
ATOM	2356	OW	HOH	678	6.029	39.991	46.094	1.000	42.69
ATOM	2357	OW	HOH	679	35.052	23.156	52.356	1.000	40.17
ATOM	2358	OW	HOH	680	-12.008	38.355	51.601	1.000	35.18
ATOM	2359	OW	HOH	681	3.061	13.047	53.152	1.000	35.17
ATOM	2360	OW	HOH	682	1.379	2.075	27.532	1.000	46.38
ATOM	2361	OW	HOH	683	-0.516	-2.480	37.686	1.000	21.77
ATOM	2362	OW	HOH	684	4.567	10.310	43.503	1.000	24.86
ATOM	2363	OW	HOH	685	19.443	5.558	61.133	1.000	36.06
ATOM	2364	OW	HOH	686	3.205	29.499	40.656	1.000	36.99
ATOM	2365	OW	HOH	687	32.498	16.774	43.447	1.000	41.18
ATOM	2366	OW	HOH	688	28.166	23.113	57.593	1.000	35.56
ATOM	2367	OW	HOH	689	-17.023	23.220	46.759	1.000	30.05
ATOM	2368	OW	HOH	690	15.567	7.782	28.910	1.000	32.51
ATOM	2369	OW	HOH	691	11.780	30.287	57.203	1.000	33.34
ATOM	2370	OW	HOH	692	24.449	12.699	32.400	1.000	34.99
ATOM	2371	OW	HOH	693	26.200	25.005	57.918	1.000	39.38

CLAIMS

1.   Deacetoxycephalosporin C synthase (DAOCS) having a structure designated by the X-ray co-ordinates of structure A or structure B herein.

2.   DAOCS in the form of a complex with a metal, e.g. iron or lead, and optionally in the presence of a substrate and/or a substrate analogue or inhibitor, having a structure designated by the X-ray co-ordinates herein.

3.   DAOCS as claimed in claim 2, wherein the substrate is penicillin N, penicillin G, 2-oxoglutarate or dioxygen, and the inhibitor is selected from N-oxalylamino acids, pyridine-carboxylates and nitrous oxide.

4.   Use of the three-dimensional structure of DAOCS for the modification of DAOCS or other related 2-oxoglutarate dependent enzyme.

5.   Use as claimed in claim 4, wherein the related 2-oxoglutarate dependent enzyme is DACS, DAOC/DACS or the oxygenase enzyme involved in the introduction of the 7α-methoxy group into cephamycin C.

6.   Use as claimed in claim 5 for the modification of DAOCS, DACS or DAOC/DACS such that they accept unnatural substrates more efficiently than the wild type enzymes.

7.   Use as claimed in claim 5 for the modification of DAOCS, DACS, DAOC/DACS such that they convert natural substrates to pharmaceuticals or useful intermediates in the preparation of pharmaceuticals.

8.   Use as claimed in claim 6 wherein the unnatural substrates are penicillins including penicillin G, penicillin V, 6-aminopenicillanic acid, amoxycillin, or penicillins with a phenyl glycine or p-hydroxyphenyl glycine side chain.

9.   Use as claimed in claim 6 wherein the unnatural substrate is a cephalosporin.

10.   Use as claimed in claim 6 wherein the unnatural substrate is an amino acid, including the proteinogenic amino acids, or a peptide.

11.   Use as claimed in any one of claims 6-8, wherein penicillin G, penicillin V, another unnatural substrate or penicillin N is converted to a cephalosporin or exomethylene cephalosporin.

12.   An enzyme having significant (as herein defined) sequence similarity to DAOCS wherein the side chain binding site of penicillin N or DAOC is modified and at at least one of the following sites at least one amino acid residue is changed to another amino acid residue or is deleted: Thr72, Arg74, Arg75, Glu156, Leu158, Arg160, Arg162, Leu186, Ser187, Phe225, Phe264, Arg266, Asp301, Tyr302, Val303, Asn304; and/or at least one additional amino acid residue is inserted within the region 300-311; provided that other residues interacting with the above may be changed in order to accommodate the change in one of the above.

13.   An enzyme having significant (as herein defined) sequence similarity to DAOCS wherein the penicillin/cephalosporin binding site of penicillin N or DAOC is modified and at at least one of the following amino acid residues is changed or deleted: Ile88, Arg160, Arg162, Phe164, Met180, Thr190, Ile192, Phe225, Pro241, Val245, Val262, Phe264, Ile305, Arg306, Arg307; and/or at least one additional amino acid residue is inserted within the region 300-311; provided that other residues interacting with the above may be changed in order to accommodate the change in one of the above.

14.   An enzyme according to claim 12 or claim 13 which is a mutant of DAOCS or DACS or DAOC/DACS.

15.   An enzyme as claimed in any one of claims 12-14, wherein both the side chain and the penicillin/cephalosporin binding sites of penicillin N or DAOC are modified and at least one of the residues specified in claims 12 and 13 is changed or deleted.

16.   An enzyme as claimed in any one of claims 12-15, wherein two or more complementary mutations are introduced to create or delete a binding interaction, including H-bonds, electrostatic, or hydrophobic interactions.

17.   A gene encoding for the enzyme of any one of claims 12-16.

18.   A micro-organism capable of expressing the gene of claim 17 under fermentation conditions.

19.   Use of micro-organisms of claim 18 for the production of beta-lactams of the penicillin or cephalosporin (including cepham) families.

20.   Use as claimed in claim 19 wherein the micro-organism contains another modified enzyme of the penicillin and cephalosporin biosynthesis pathway including isopenicillin N synthase, amidohydrolase/acetyltransferase, or L-delta-(aminoadipoyl)-L-cysteine-D-valine (ACV) synthetase.

21.   A method which comprises using the three-dimensional structure of DAOCS for determining or predicting the structure of another related 2-oxoglutarate dependent enzyme or related enzyme not from the penicillin and cephalosporin biosynthesis pathway, and using the structural information so obtained for modifying the other enzyme or for designing an inhibitor for the other enzyme.

22.   A method as claimed in claim 21 wherein the said other related 2-oxoglutarate dependent enzyme or related enzyme is 1-aminocylopropane-1-carboxylate oxidase, gibberellin C-20 oxidase, flavone synthase, flavanone 3β-hydroxylase, hyoscyamine 6β-hydroxylase, prolyl 4-hydroxylase, prolyl 3-hydroxylase, aspartyl hydroxylase, lysyl hydroxylase, proline hydroxylases, γ-butyrobetaine hydroxylase, enzymes in herbicide resistance mechanisms, clavaminate synthase, an oxygenase enzyme involved in the biosynthesis of carbapenems, the so called ethylene forming enzyme from *Pseudomonas syringe*, p-hydroxyphenylpyruvate dioxygenase, and an oxygenase enzyme involved in the oxidation of phytol in human liver peroxisomes.

23.   A method as claimed in claim 21 or 22, wherein the said other enzyme is modified, by deletion or addition or alteration; at one or more of the sites defined in claim 12 or claim 13; or using the following information for the design or an inhibitor: Asp185, His183 and His243 act as ligands to the iron; Arg258 and Ser260 and the Fe bind the

2-oxoglutarate; Met180, Phe225, Leu31 and Val245 are close to the iron binding site; Tyr33, Arg160, Arg162, Phe164, Ile192, Gln194, Leu204, Leu223, Leu215 are important for the construction of the part of the active site binding 2-oxoglutarate; and Arg160 and Arg162 are important for binding an amino acid or peptide derived substrate.

24.   A method as claimed in any one of claims 21-23, wherein the said other enzyme is prolyl 4-hydroxylase, prolyl 3-hydroxylase, aspartyl hydroxylase, or lysyl hydroxylase and the inhibitor is to be used for the treatment of human diseases including fibrotic diseases including liver cirrhosis and arthritis.

25.   A method as claimed in any one of claims 21-23, wherein the said other enzyme is p-hydroxyphenylpyruvate dioxygenase and the inhibitor is to be used in the treatment of certain genetic disorders.

26.   A method as claimed in any one of claims 21-23, wherein the said other enzyme is involved in herbicide resistance and the information is to be used to design new herbicides to overcome the problem of resistance.
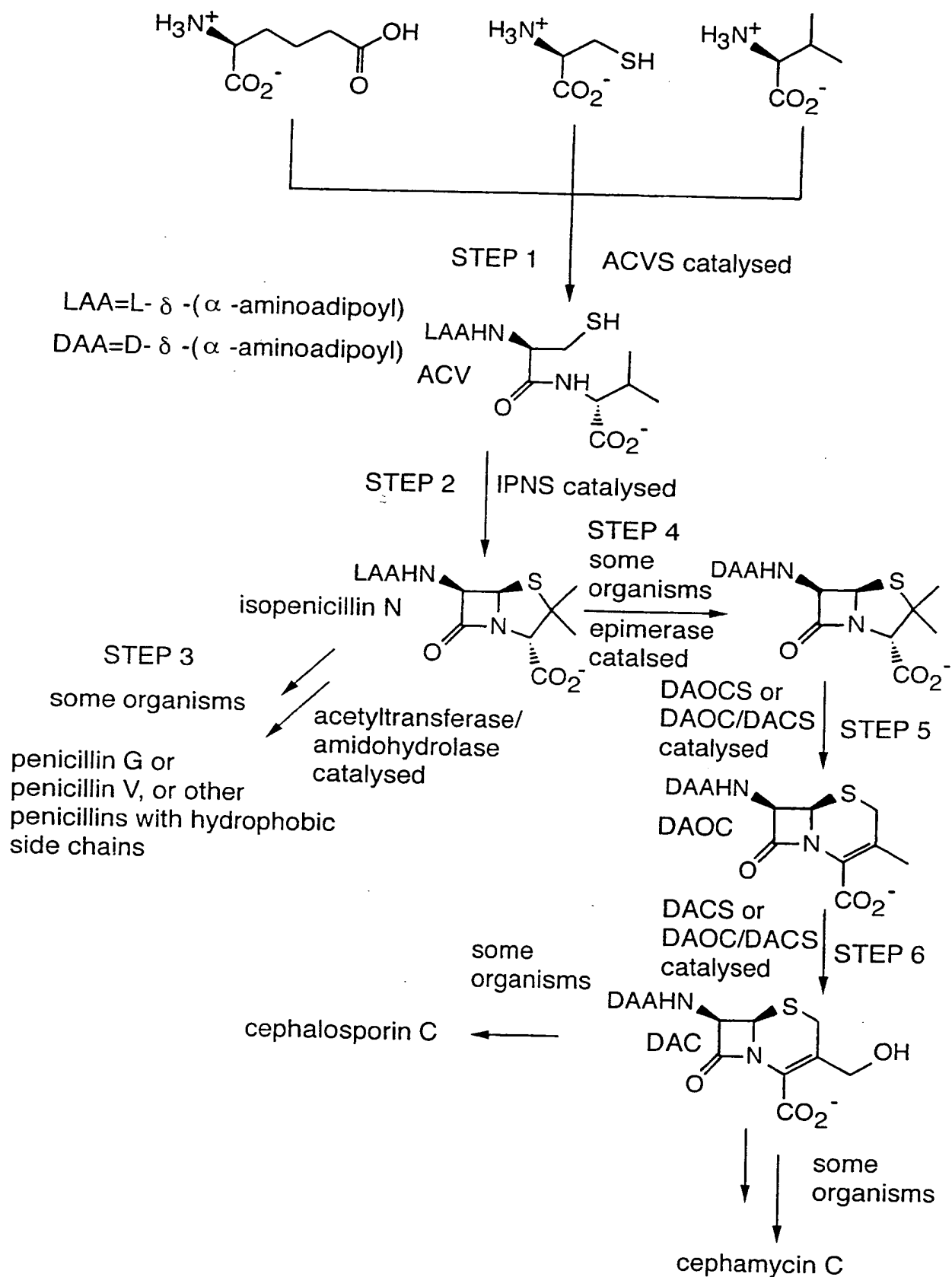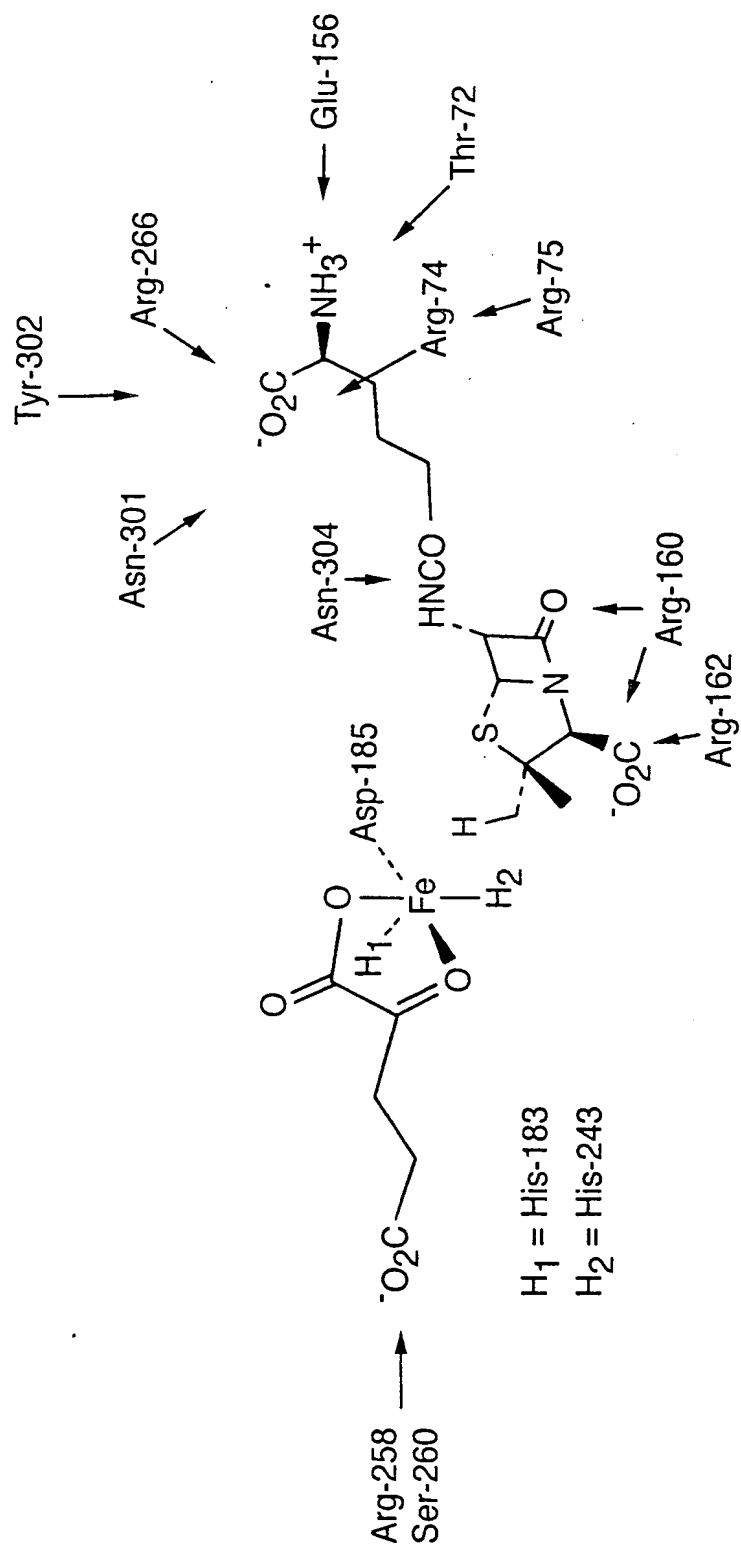
Fig.1.

LAA=L- δ -(α -aminoadipoyl)
DAA=D- δ -(α -aminoadipoyl)

STEP 1   ACVS catalysed

STEP 2   IPNS catalysed

isopenicillin N

STEP 4
some
organisms
epimerase
catalsed

STEP 3
some organisms

penicillin G or
penicillin V, or other
penicillins with hydrophobic
side chains

acetyltransferase/
amidohydrolase
catalysed

DAOCS or
DAOC/DACS
catalysed   STEP 5

DAOC

DACS or
DAOC/DACS
catalysed   STEP 6

some
organisms

cephalosporin C ◄——

DAC

some
organisms

cephamycin C

Fig.2.

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6   C12N15/52   C12N9/00   C12P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6   C12N   C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CORTES, JESUS ET AL: "Purification and characterization of a 2-oxoglutarate-linked ATP-independent deacetoxycephalosporin C synthase of Streptomyces lactamdurans" J. GEN. MICROBIOL. (1987), 133(11), 3165-74 CODEN: JGMIAN;ISSN: 0022-1287, 1987, XP000035085	1
Y	see the whole document	2,3, 21-26

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X	Further documents are listed in the continuation of box C.		X	Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not
      considered to be of particular relevance

"E" earlier document but published on or after the international
      filing date

"L" document which may throw doubts on priority claim(s) or
      which is cited to establish the publication date of another
      citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or
      other means

"P" document published prior to the international filing date but
      later than the priority date claimed

"T" later document published after the international filing date
      or priority date and not in conflict with the application but
      cited to understand the principle or theory underlying the
      invention

"X" document of particular relevance; the claimed invention
      cannot be considered novel or cannot be considered to
      involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention
      cannot be considered to involve an inventive step when the
      document is combined with one or more other such docu-
      ments, such combination being obvious to a person skilled
      in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 March 1999	26/03/1999

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Hix, R

INTERNATIONAL SEARCH REPORT

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document. with indication,where appropriate. of the relevant passages	Relevant to claim No.
X	ROLLINS, M. J. ET AL: "Purification and initial characterization of deacetoxycephalosporin C synthase from Streptomyces clavuligerus" CAN. J. MICROBIOL. (1988), 34(11), 1196-202 CODEN: CJMIAZ;ISSN: 0008-4166, 1988, XP002095821	1
Y	see the whole document	2,3, 21-26

X	ROLLINS M J ET AL: "ISOPENICILLIN N SYNTHASE AND DEACETOXYCEPHALOSPORIN C SYNTHASE ACTIVITIES DURING DEFINED MEDIUM FERMENTATIONS OF STREPTOMYCES-CLAVULIGERUS EFFECT OF OXYGEN AND IRON SUPPLEMENTS" CAN J MICROBIOL, (1989) 35 (12), 1111-1117. CODEN: CJMIAZ. ISSN: 0008-4166., XP002095822	1
Y	see the whole document	2,3, 21-26

X	DOTZLAF, JOE E. ET AL: "Purification and properties of deacetoxycephalosporin C synthase from recombinant Escherichia coli and its comparison wit the native enzyme purified from Streptomyces clavuligerus" J. BIOL. CHEM. (1989), 264(17), 10219-27 CODEN: JBCHA3;ISSN: 0021-9258,1989, XP002095823	1
Y	see the whole document	2,3, 21-26

X	BALDWIN J E ET AL: "HIGH-LEVEL SOLUBLE EXPRESSION AND PURIFICATION OF DEACETOXYCEPHALOSPORIN C-DEACETYLCEPHALOSPORIN C SYNTHASE." BIOORG MED CHEM LETT, (1992) 2 (7), 663-668. CODEN: BMCLE8. ISSN: 0960-894X., XP002095824	1
Y	see the whole document	2,3, 21-26

X	EP 0 366 354 A (LILLY CO ELI) 2 May 1990	1
Y	see the whole document	2,3, 21-26

X	BALDWIN J E ET AL: "HIGH-LEVEL SOLUBLE EXPRESSION AND PURIFICATION OF DEACETOXYCEPHALOSPORIN C-DEACETYLCEPHALOSPORIN C SYNTHASE." BIOORG MED CHEM LETT, (1992) 2 (7), 663-668. CODEN: BMCLE8. ISSN: 0960-894X., XP002095825	1
Y	see the whole document	2,3, 21-26

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
P,X	VALEGARD, KARIN ET AL: "Structure of a cephalosporin synthase" NATURE (LONDON) (1998), 394(6695), 805-809 CODEN: NATUAS;ISSN: 0028-0836,1998, XP002095826 see the whole document ---	1-11, 21-26
P,X	WO 98 16648 A (BALDWIN JACK EDWARD ;CLIFTON IAN (GB); ISIS INNOVATION (GB); ROACH) 23 April 1998 see the whole document ---	1-26
Y	ROACH P L ET AL: "CRYSTAL STRUCTURE OF ISOPENICILLIN N SYNTHASE IS THE FIRST FROM A NEW STRUCTURAL FAMILY OF ENZYMES" NATURE, vol. 375, no. 6533, 22 June 1995, pages 700-704, XP002059796 cited in the application see the whole document ---	2,3, 21-26
Y	SCOTT R A ET AL: "X-RAY ABSORPTION SPECTROSCOPIC STUDIES OF THE HIGH-SPIN IRON(II) ACTIVE SITE OF ISOPENICILLIN N SYNTHASE: EVIDENCE FOR FE-S INTERACTION IN THE ENZYME-SUBSTRATE COMPLEX" BIOCHEMISTRY, vol. 31, no. 19, 1992, pages 4596-4601, XP002067783 see the whole document ---	2,3, 21-26
Y	ROACH P L ET AL: "STRUCTURE OF ISOPENICILLINN SYNTHASE COMPLEXED WITH SUBSTRATE AND THE MECHANISM OF PENICILLIN FORMATION" NATURE, vol. 387, no. 6635, 19 June 1997, pages 827-830, XP002067787 cited in the application see the whole document ---	2,3, 21-26
A	WO 97 20053 A (GIST BROCADES BV ;UNIV OXFORD (GB); SUTHERLAND JOHN DAVID (GB); BO) 5 June 1997 cited in the application see the whole document ---	
A	EP 0 532 341 A (MERCK & CO INC) 17 March 1993 cited in the application see the whole document ---	

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INTERNATIONAL SEARCH REPORT

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category [?]	Citation of document, with indication.where appropriate, of the relevant passages	Relevant to claim No.
A	N. SHIBATA ET AL.: "Adipoyl-6-aminopenicillanic acid is a substrate for deacetoxycephalosporin C synthase (DAOCS)." BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, vol. 6, no. 113, 1996, pages 1579-1584, XP002095827 cited in the application see the whole document -----	

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Information on patent family members

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			DE	68925338	D	15-02-1996
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			ES	2082787	T	01-04-1996
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			JP	2242675	A	27-09-1990
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